



Fig. 1.

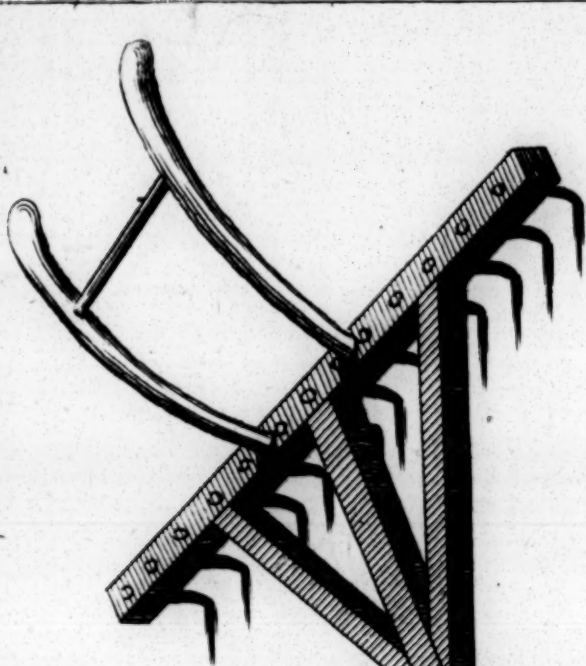


Fig. 3.

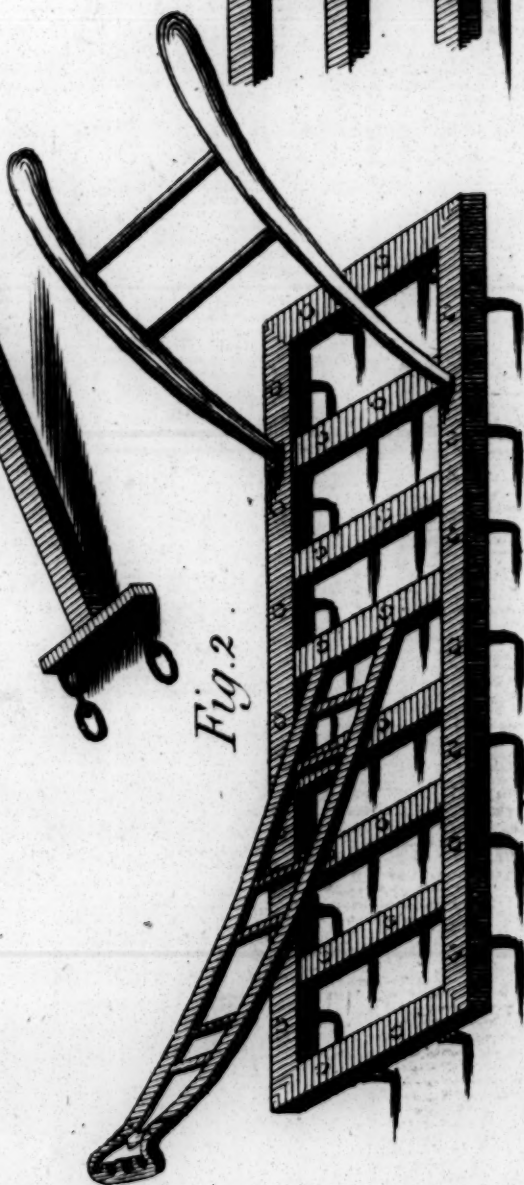


Fig. 2.

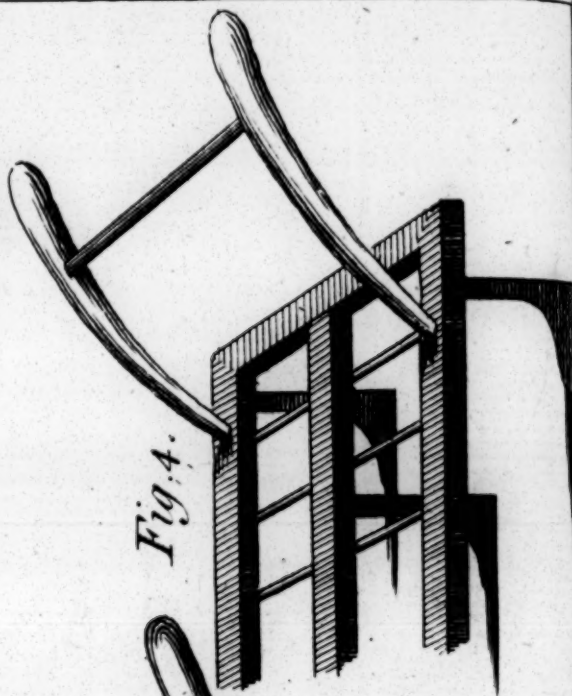


Fig. 4.

England, Wales, Southern Counties
SIX WEEKS TOUR,

THROUGH THE
SOUTHERN COUNTIES
OF
ENGLAND AND WALES.

DESCRIBING, PARTICULARLY,

- | | |
|--|---|
| I. The present State of
Agriculture and Manu-
factures. | IV. The Prices of Labour
and Provisions. |
| II. The different Methods
of cultivating the Soil. | V. The State of the
Working Poor in those
Counties, wherein the
Riots were most remark-
able. |
| III. The Success attending
some late Experiments on
various Grasses, &c. | |

WITH,
DESCRIPTIONS and COPPER-PLATES,
of such newly invented IMPLEMENTS of HUS-
BANDRY as deserve to be generally known :

INTERSPERSED

With ACCOUNTS of the SEATS of the NOBILITY and
GENTRY, and other Objects worthy of Notice.

BY THE
AUTHOR of the FARMER'S LETTERS.

The THIRD EDITION, Corrected and Enlarged.

L O N D O N :

Printed for W. STRAHAN; W. NICOLL, No. 51, in
St. Paul's Church-Yard; T. CADELL, in the Strand;
B. COLLINS, at Salisbury; and J. BALFOUR, at Edinburgh,

MDCCLXXII.



INTRODUCTION
TO THE SECOND EDITION.

THE favourable reception these papers have met with from the Public, demands not only the thanks of the author, but an attention to render this second edition as perfect as his situation would admit: to travel the same country with an eye to this alone could scarcely be expected, but such additions and improvements as could be gained from a re-examination of a part of the route are now inserted.

It is to be hoped that the candid reader has not perused this trifle

with too critical an eye. That it is very imperfect I am too sensible; but in extenuation of the fault it should be remembered that this is the first attempt ever made in *England* to lay any account of her agriculture taken on the spot before the public, and, like most first efforts, is not so vigorous as might be expected from succeeding ones.

That the design is useful has by none been disputed; for in an age so very political as this, which founds every enquiry on the remotest connection of things, it cannot be thought improper or unentertaining, to display the *real* riches of the country; to discover the rental, value, stock in husbandry, labour, prices, &c. of the kingdom;
in

in a word, to clear away all the rubbish of false ideas and suppositions from these only foundations of the true political system.

While such numerous works of all kinds are publishing on the subject of husbandry, I apprehend a clear knowledge of the practice of every part of the kingdom a point of no inconsiderable importance; without such knowledge we do not know wherein amendment is most wanting;—we are unacquainted with the great objects that require our chief attention, and may employ ourselves in trifles, while matters of consequence demand our care.

It has been more than once remarked, that there is no country that possesses so bad an agriculture, but something useful may be learnt from it: The truth of this observation is apparent in every one of our counties; perhaps in every *hundred*. Practices that are found highly advantageous in one district are totally unknown in another; although the soil, exposure, climate, &c. be exactly the same. The farmers in one place grow rich by methods which would enrich their brethren in another; but which remain quite unknown. Can it be thought useless to render all such local knowledge general? To let every cultivator see all the different methods that are practised upon such land as his own;

own ; that he may know from them his own deficiencies, and learn at the same time to remedy them : and this not from the *ipse dixit* of an author, or the opinion of an individual, but from the genuine practice of his *brother farmer* in another place.

I would not however be understood to expect too much from the common farmer's reading this, or indeed any book : I am sensible that not one *farmer* in five thousand reads at all, but the country abounds in gentlemen farmers, whose ideas are more enlarged, and whose practice is founded less on prejudice. Such cultivators may be supposed to read and act accordingly : it is by their means that the farmers vary, by
flow

flow degrees, the common line of management, and come into improvements unknown to their forefathers.

They who suppose *any* improvement originally owing to *common* farmers are somewhat mistaken. All the well known capital strokes of husbandry are traced accurately to gentlemen : From whence comes the introduction of turnips in *England* ? But from *Tull*. Who introduced clover ? But Sir *Richard Weston*. Marling in *Norfolk* is owing to Lord *Townshend* and Mr. *Allen*. In a word, the most noted improvements were devised and first practised by gentlemen ; common husbandmen in a long period of years, imitate the method in proportion
to

to the success, and so by slow degrees it becomes general.

It is the design of this little register to spread useful knowledge of all sorts, to display to one part of the kingdom the practice of the other, to remark wherein such practice is hurtful, and wherein it is commendable. To draw forth spirited examples of good husbandry from obscurity, and display them the proper objects of imitation;—a purport that can scarcely be condemned; if the execution is good, the design will defend itself.

I know too well the defects of the following papers to exhibit them as a complete representation of these matters: they contain but a sketch;
rather

rather the outline of a design, than the completion of a picture. I offer it but as the specimen of an idea in part executed; promising, at the same time, that my next attempt shall be more spirited, and that I shall aim, at presenting a work more worthy the attention of the public than this trifle can pretend.

ADVERTISEMENT
TO THE THIRD EDITION.

IT is proper to inform the reader that I have applied to the gentlemen whose experiments are registered in this Tour for their continuation, and several of them have favoured me with the particulars. The reverend Mr. LORD of *Welnetbam* has corrected some mistakes in the former edition, for which I am much obliged to him. The reverend Mr. RAY of *Tostoc* has favoured me with the register of some experiments on carrots and potatoes, which are extremely valuable. The public is much interested in his prosecution of these trials,

trials, especially if Mr. *Ray* attempts to ascertain their value in feeding cattle. Captain INNES of *North-End*, has favoured me with an account of the common husbandry in the neighbourhood of his farm.

I have made several other additions to this impression, and such as I hope will render the work more worthy of the reader's attention.



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SIX WEEKS TOUR, &c.

LETTER I.

Dear Sir,

I shall comply with your request, and give you a few minutes of my journey into *Wales* and back again, with the utmost readiness. But one condition you must allow me to make, which is, that you pardon the incorrectness of hasty letters, written from inns, farm-houses, and cottages, with accuracy in nothing but the matter of my inquiries; as to my language you must excuse it. I shall not be wanting in care to gain as complete a knowledge as possible of the present state of the agriculture, manufactures, and population of the several counties through which I pass; and I shall be free enough to scatter throughout my intelligence, such remarks as my little experience will allow me to make. I have already thrown upon paper the beginning of my tour from *Wells*

B

to

to *Hadleigh* in *Suffolk*; the minutes of which are as follow.—But first let me make some apologies for being so particular in my description of several country-seats of the nobility and gentry, I viewed, especially in *Norfolk*. The professed design of my sketch is husbandry; but it would have rather bordered on stupidity to pass very near a celebrated house without viewing it; and when seen, there are so many things worthy of mentioning, that I thought they would serve to vary the tenor of my letters in general, and render them somewhat more entertaining. So you must accept the medley, and not be too criticising on any jumble of heterogeneous parts.

From *Wells* towards *Lynn* I moved rather in a zig-zag manner, crossing the country more than once.

The plantations around *Warham*, the seat of Sir *John Turner*, are disposed with so much taste, that I would not have you go into *Norfolk* on the *Houghton* and *Holkham* tour without visiting it; but what attracted my notice more, was Sir *John's* improvement by *Sainfoyn*, which he introduced into this country from *Gloucestershire*. It has flourished with him for many years; he mows it constantly for hay, of which it yields a large crop, generally two tuns per acre; but I could not find the example followed by any of the neighbouring

ing farmers. Lucerne, Sir John purposes trying broadcast, and singling the plants out with a hand-hoe, in the method that turnips are done*.

All the country from *Holkam* to *Houghton* was a wild sheep-walk, before the spirit of improvement seized the inhabitants; and this spirit has wrought amazing effects; for instead of boundless wilds, and uncultivated wastes, inhabited

* *Holkam*, the celebrated house of the Counts of *Leicester*, built by the late Earl, cannot be viewed with too much attention. I was informed that it appeared by much the most magnificent when entered by the southern approach, and therefore went a small round for that advantage. The first objects are a few small clumps of trees, which just catch your attention, and give you warning of an approach: they sketch out the way to the triumphal arch, under which the road runs. This structure is in a pleasing taste, and finished in an elegant manner; it is extremely light, and the white flint rustics have a good effect. A narrow plantation on each side a broad vista, leads from hence to the obelisk, at the distance of a mile and half: this plantation, I should observe, ought to be much thicker, for you see the light through many parts of it; but I apprehend it only a sketch of what the late Earl designed, and not meant as complete. At the bottom of the hill, on which the obelisk stands, are the two porters lodges, small, but very neat structures. Rising

B 2

with

by scarcely any thing but sheep ; the country is all cut into enclosures, cultivated in a most husband-like manner, richly manured, well peopled, and yielding an hundred times the produce that it did in its former state. What has wrought these great works is the marling ; for under the whole country run veins of a very rich kind, which they dig up, and spread upon the old sheep walks, and then by means

with the hill, you approach the obelisk, thro' a fine plantation ; and nothing can be attended with a better effect, than the vistas opening at once. There are eight. 1. To the south front of the house. 2. To *Holkam* church, on the top of a steep hill, covered with wood ; a most beautiful object. 3. To the town of *Wells*, a parcel of scattered houses appearing in the wood. 4. To the triumphal arch :—the rest to distant plantations. Vistas are by no means the taste of the present age, but such a genius as Lord *Leicester* might be allowed to deviate from *fashion* in favour of *beauty* and *propriety*. Nothing can be more regular than the front of a great house, the approach to it ought therefore to partake of this regularity ; Because strait cuts are justly out of fashion, are we to have nothing but winding roads ; he who is too late for dinner, may have reason to wish a *strait road*, instead of a *winding approach*. The effect here is good, because no part of the ground is flat ; on such land even a strait road is unpleasing. The temple at *Holkam* commands exceedingly beautiful objects ;
amongst

of inclosing they throw their farms into a regular course of crops, and gain immensely by the improvement.

The farms are all large, and the rents low, for the farmers having been at a great expence in improvements, they could not afford them without very long leases; so that most of the farms are lett at present at rents much under their value: add to this, a considerable part of the country

amongst others, *Wells* church.—The lake in the park, which is seen from hence through some spreading trees in a most picturesque manner.—A planted hill.—The sea—and the rest distant plantations.

The house may be said to consist of five quadrangles, the center and the four wings:—Not that they are squares, but I use the term to give you a general idea. Each of the two fronts thereof presents a center and two wings. That to the south, and the grand approach, is as beautiful, light, airy, and elegant a building as can be viewed. The portico is in a fine taste, and the Corinthian pillars beautifully proportioned*. This central front, in every respect that can be named, appears all lightness and proportion: But when you advance near, you do not find an entrance to the house;

B 3

there

* It may be said the proportion of a pillar is stated, and always the same.—I know nothing of architecture, but view these at *Holkam* and others at *Blenheim*, &c,

belongs to landlords, who have a vanity in not raising their rents, and others are supposed to have taken moderate fines; all together the farmers have managed to raise considerable fortunes.

The farms run from 300 *l.* to 900 *l.* a year, for which sums they have a great quantity of land: rents are in general from 2 *s.* 6 *d.* to 6 *s.* *per* acre. Many farms under new leases are rented at 10 *s.* and

there are no stairs up to the portico; and this circumstance, after so fine an approach, and so long seeing the portico, and expecting it to be the entrance, becomes a disappointment, and is a fault in the building.

I have spoken hitherto of the central front alone. The whole, including the two wings, I cannot think so perfect; for, there appears a want of unity. The several parts are not so nicely connected as to form one whole. The center must be seen distinct, each wing the same; and likewise the small parts (I know not what to call them) which join the center to the wings. These are all distinct parts, though joined together; nor is there any similitude of taste between them. All the pieces of this front are light to a great degree; but when considered as connected parts, the want of unity is striking. The center is uniform, but not the whole front, because the parts are not in the same taste with the wings: as to the *joining pieces*, they are *pretty*. The north front consists of one row of *Venetian* windows, over another of common sashes in the rustics.

more *per acre*, but they are not very common. I speak of a large tract of country stretching from *Holkam* to the sea westward, and south to *Swafham*.

The principal farms (at least those that are most commonly mentioned) are Mr. *Curtis's* of *Sommerfield*, 2000 acres. Mr. *Mallet's* of *Dunton*, as much. Mr. *Barton's* of *Rougham*, 3000. Messrs. *Glover's*

rustics. This front does not please so well as the south one, but it is by far more of a piece with the wings, &c.

Respecting the disposition of the apartments, one may say that *contrivance* must have been the characteristic of Lord *Leicester*; for so convenient a house does not exist—so admirably adapted to the *English* way of living, and so easily to be applied to the grand, or the comfortable stile of life.

You enter what they call the great hall, but which is in reality a passage. It is called a cube of 48 feet; eighteen very large and magnificent *Corinthian* pillars surround it, having their pedestals rested on a marble passage, eight or ten feet higher than the ground: the area at bottom is an oblong, walled in with *Derbyshire* marble, and upon the wall are the pillars, six in a line on each side, and six in front in a semi-circle around a flight of steps up to the saloon door. The passage or gallery, as it may be called, runs around these pillars, and both together take up so much room that proportion is hurt; to look from it into the

of *Creek* and *Barwic* *. Messrs. *Savary's* of *Sydderstone*, and Mr. *Rogerson's* of *Narford*, each 1100 acres. Cultivation in all its branches is carried on by these men, and many others, in a very complete manner. But marling is the great foundation of their wealth.

They used to lay about 100 loads on an acre, which cost them for digging from 1 *l.* 5 *s.* to 1 *l.* 10 *s.* and they reckon the expences

area, it appears like a bath. The south front was one proof, and this hall is another, that the architect's genius was not of the magnificent or sublime stamp, for in both he aimed at greatness; the impression of the front is varied and consequently weakened by the wings, and the want of proportion in the hall ruins the vast effect which would otherwise attend such pillars so arranged; but in the pleasing stile, his taste has never failed throughout the whole building. — The hall is entirely of *Derbyshire* marble.

The saloon is 42 feet by 27, a proportion much condemned, but it is not displeasing. Some call it a gallery; and I think a gallery is preferable to a cube, or to any proportion near a square enormously high: one of the finest rooms in *England* is the double cube at *Wilton*, which is more of a gallery than the saloon at *Holkam*, and yet no one ever entered it without being struck with the justness of the proportions.

* The latter lately dead.

of the team, and other labour, to be as much more. The improvement lasts in great vigour above twenty years; and the land is always the better for it. Their course of crops is—Marle, and break up for wheat. 2. Turnips. 3. Barley. 4. Laid down with clover and ray-grass for two or three years, or sometimes only one. They dung or fold for all their winter-corn, and reckon two nights fold equal to a dung-

portions.—This saloon is hung with crimson caffoy; the pier glasses small on account of the narrowness of the piers, each against a pillar of the portico, but in a good taste. The rooms to the left of the saloon are, first, a drawing room 33 by 22, hung with crimson caffoy. The pier-glasses very large and exceedingly elegant; the agate tables beautiful. From thence we entered the landscape-room, which is a dressing room to the state bed-chamber; it is 24 by 22, hung with crimson damask; a passage leads to the anti-room of the chapel, and then into the state-gallery. The walls are of *Derbyshire* marble; the altar and all the decorations in a just taste. Returning to the landscape-room, you pass into the state bed-chamber, 30 by 24, which is fitted up in a very pleasing taste. It is hung with *French* tapestry, except between the piers, which is by Mr. *Saunders* of *Soho-square*; the colours of the whole brilliant. The bed is of cut velvet, upon a white sattin ground, and as it appears in common is a handsome gilt settee, under a canopy.

The

ing; the quantity of the latter they lay upon an acre is 12 loads. For some years after the marling, they reap, on a medium, four quarters of wheat *per* acre, and five of barley; and 15 or 18 years after marling, three quarters of wheat, and four and a half of spring corn.

The general œconomy of their farms will appear from the following sketch of one of 1100 acres.

The chimney-piece beautiful; pellicans in white marble. The next apartment is Lady *Leicester's*, consisting of a bed-chamber, dressing-room, closet with books, and a smaller one. The bed-chamber 24 by 22, purple damask, *French* chairs of velvet tapestry: the chimney-piece a bass. rel. of white marble polished. The dressing-room 28 by 24, hung with blue damask.

On the other side of the saloon, you enter another drawing-room 33 by 22, hung with a crimson flowered velvet. The glasses, tables, and chimney-pieces are worthy attention. From this you come to the statue-gallery; which, I think, is one of the most beautiful rooms I have seen: the dimensions are to the eye proportion itself—nothing offends the most criticising. It consists of a middle part 70 feet by 22, and at each end an octagon of 22, open to the center by an arch; in one are compartments with books, and in the other statues: Those in the principal part of the gallery stand in niches in the wall, along one side of the room,
on

The farmer generally has

100 acres of winter corn.

250 - - barley and oats,

50 - - pease.

200 - - turnips.

400 - - grasses.

100 - - sheep-walk.

1100

on each side the chimney-piece. Observe in particular the *Diana*; the figure is extremely fine, and the arms inimitably turned. The *Venus* in wet drapery is likewise exquisite; nothing can exceed the manner in which the form of the limbs is seen thro' the cloathing. The slabs are fine; the ceiling, the only plain one in the house, (they are gilt fret work and mosaic) which may be thought a mark of propriety.

The entrance I have already mentioned from the drawing-room is into one octagon, and out of the other opens the door into the dining-room, a cube of 28 feet, with a large recess for the side-board, and two chimney-pieces very pleasing; one a sow and pigs and wolf; the other a bear and bee-hives, finely done in white marble; the nose of the sow was broke off by a too common misapplication of sense, *feeling* instead of *seeing*; *John*, to an object of sight, presents his fist or his horse-whip. Returning into the statue-gallery, one octagon leads into the stranger's wing, and the other to the late Earl's apartment: consisting of, 1. The anti-room.

He keeps

6 Servants.

20 Cows.

6 Labourers.

900 Sheep.

30 Horses.

5 Ploughs.

And in harvest-time has in all about forty people in the field.

The culture of turnips is here carried on in a most extensive manner; *Norfolk* being more famous for this vegetable than any county in the kingdom; but I have

room. 2. His Lordship's dressing-room. 3. The library, 50 by 21. 4. Lady *Leicester's* dressing-room. 5. The bed-chamber. 6. A closet with books. The rooms are about 22 by 20. The strangers wing consists of anti-chamber,—dressing-room,—bed-chamber,—closet, with books—bed-chamber—dressing-room—bed-chamber—dressing-room. The fitting up of the whole house, in all particulars not mentioned, is in a beautiful taste, the *Venetian* windows beyond any I have seen; ornamented with magnificent pillars, gilt and carved.

But now, Sir, let me come to what of all other circumstances is in *Holkam* infinitely the most striking, and renders it so particularly superior to most of the great houses in the kingdom—*convenience*. In the first place, with respect to the state-apartments—From the hall to the saloon, on each side a drawing-room—thro' one of them to the state dressing-room and bed-chamber: this is complete. Through the other drawing-room to the statue-gallery, which may be called the rendezvous-room, and connects

seen much larger turnips in *Suffolk* in gravelly loams than ever I saw in *Norfolk*. The use to which they apply their turnips, is the feeding their flocks, and expending the surplus in fattening *Scotch* cattle, which they do in several methods; by stall-feeding——in binns in their farm-yards——in pasture-fields——and lastly, hurdle them on their turnips as they grow, in the same manner as they do their sheep.

connects a number of apartments together, in an agreeable manner; for one octagon opens into the private wing, and the other into the strangers on one side, and into the dining-room on the other. This dining-room is on one side of the hall, on the other is Lady *Leicester's* dressing-room; and through that her bed-chamber and closets. From the recess in the dining-room opens a little door to a stair-case, which leads immediately to the offices; and I should likewise tell you, that in the center of the wings, by the center of the house, by the saloon door, and behind Lady *L——'s* closet, are stair-cases unseen, which communicate with all the rooms, and lead down to the offices.——I say *down*; for the hall is the only room seen on the ground-floor; you step directly from a coach into it, without any quarry of winding steps to wet a lady to the skin before she gets under cover. From the hall you rise to the saloon, or first floor, and there is no attick. Thus you perceive there are four general apartments, which are all distinct from each, with no reciprocal thorough-

By stall-feeding they make their crop go much the furthest; but the beasts so fed, are apt to founder on the road to *London*, the expences on it are great, and the soil loses the urine: but all these methods are yet in use. When the marle begins to wear out, many of the great farmers have latterly got into a method of manuring with oil-cakes for their winter-corn, which they import from *Holland*, and spread on their

thoroughfares;—the state—her Ladyship's—the late Earl's—and the strangers wing. These severally open into what may be called common rooms, the hall, statue-gallery, and saloon, and all immediately communicate with the dining-room. There may be houses larger, and more magnificent, but human genius can never contrive any thing more convenient, which will readily be allowed by any one who examines the annexed plate. See Plate I.

The following are the principal pictures.

Cignani. *Joseph* and *Potiphar's* wife; a good piece.

P. Pietris. Virgin and child.

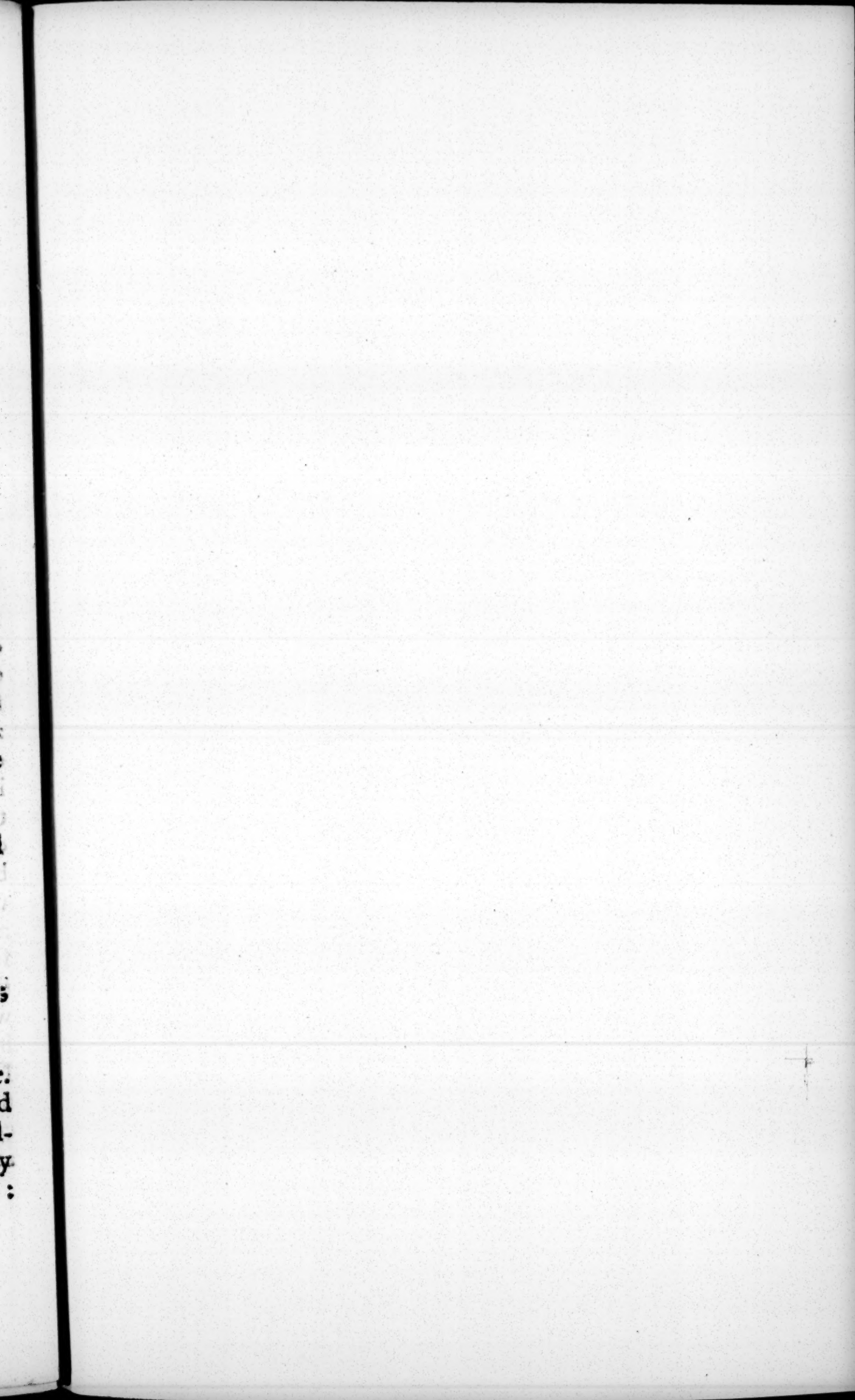
Poussin. Two large landscapes.
A smaller one.

Three others in the landscape-room;
fine.

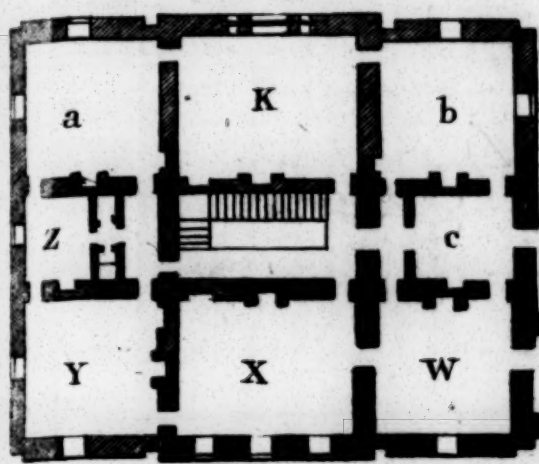
Two others.

Vandyke. Duke of *Aremberg*; a very fine piece.

P. Cortona, Coriolanus: The figure of the old man kneeling before *Coriolanus*, and hiding his face with his hands, is extremely

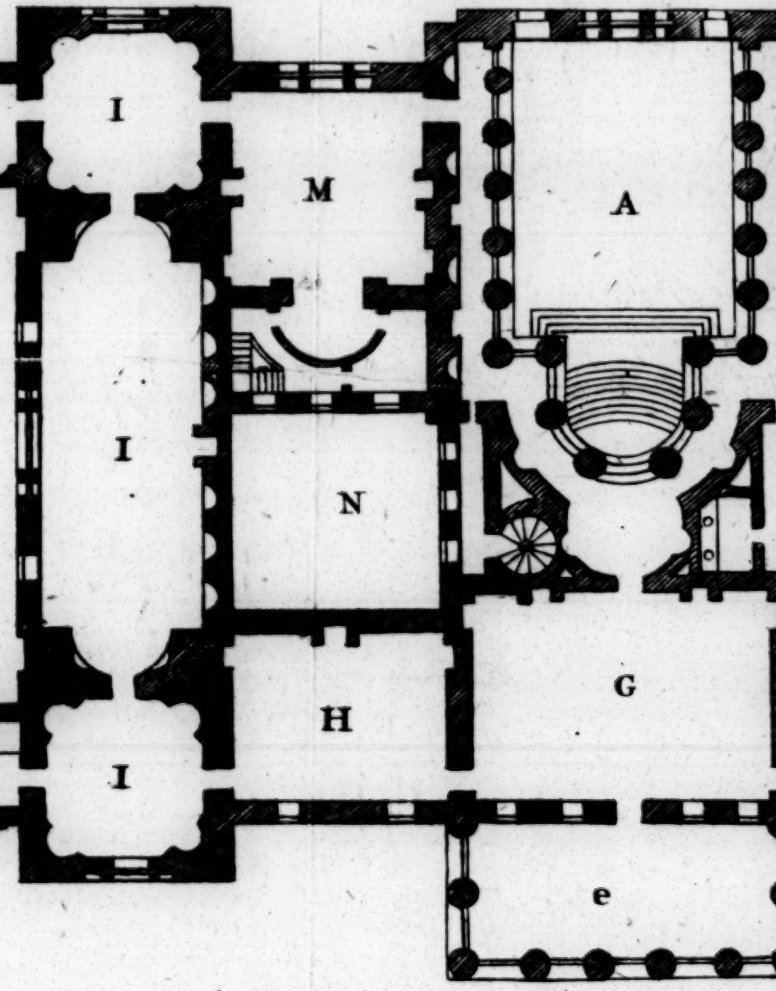
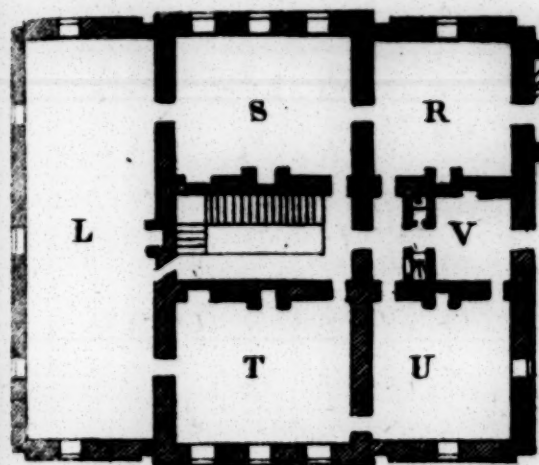


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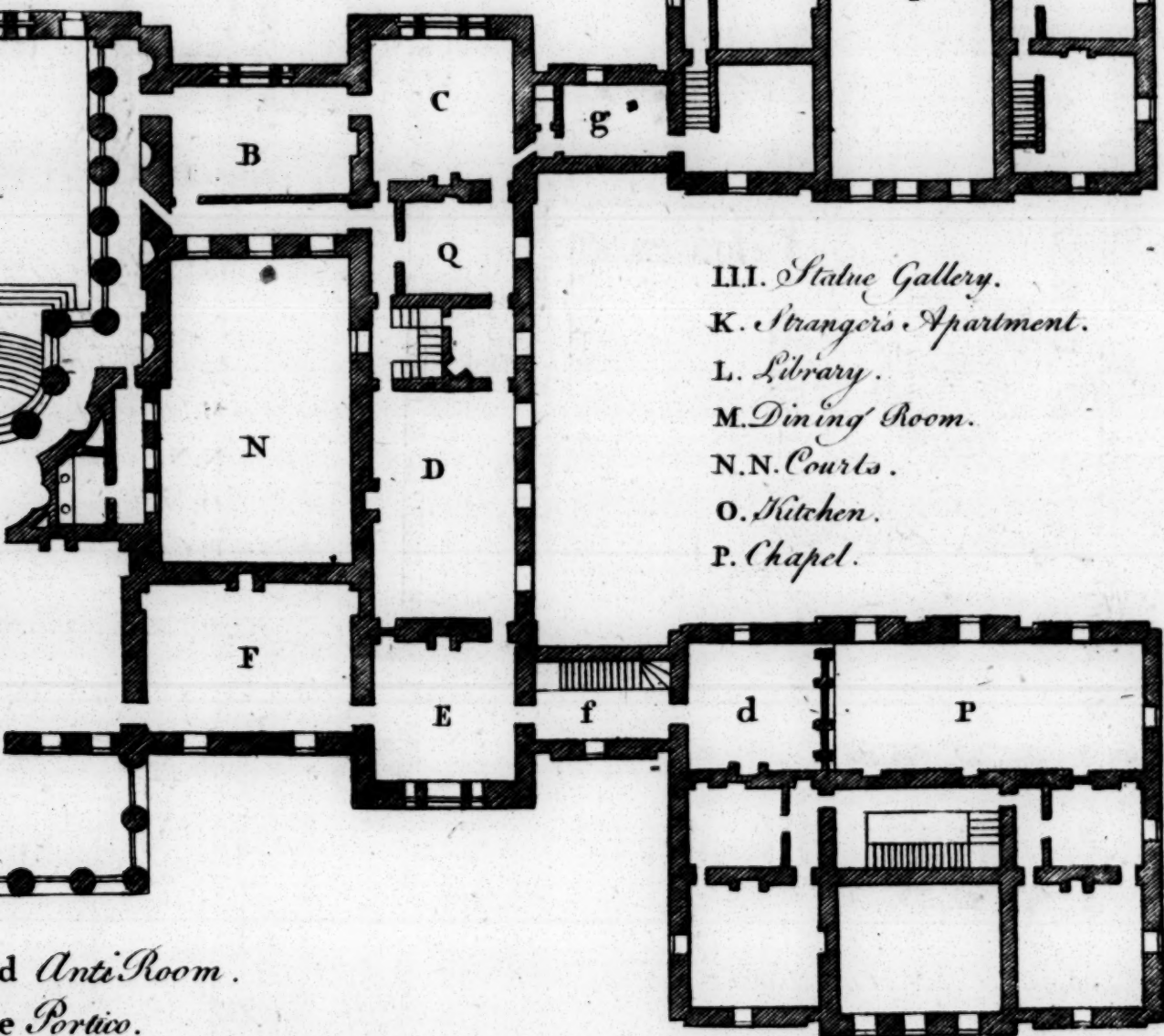
Q. Lady Leicester's Closet with Books.
 R. Anti Chamber.
 S. Lord Leicester's Dressing Room.
 T. Lady Leicester's D.
 U. Lady
 V. D.
 W. Anti
 X Dress

A. Hall.
 B. Dressing Room.
 C. Bed Chamber.
 D. State Bed Chamber.
 E. Landscape Room?
 F. H. Drawing Rooms.
 G. Saloon.



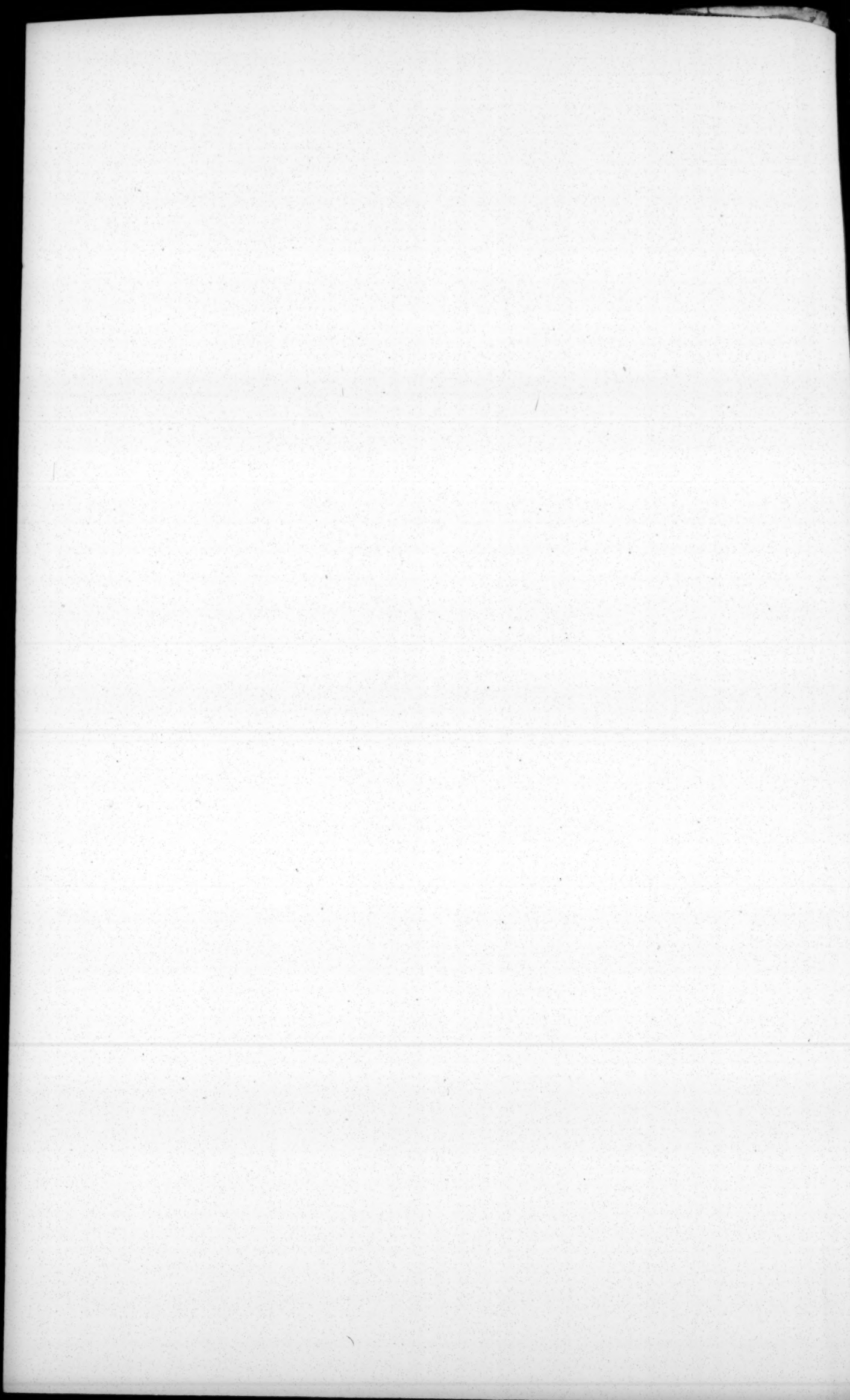
Y. Bed Chamber.
 Z. Closet with Books.
 a. { Bed Chambers.
 b. {
 c. Dressing Room.
 d Anti
 e Portico
 f } Little
 g }
 h } Books
 i }

U. Lady Leicester's Bed Room.
 V. D.^o Closet.
 W. Anti Chamber.
 X. Dressing Room.



III. Statue Gallery.
 K. Stranger's Apartment.
 L. Library.
 M. Dining Room.
 N.N. Courts.
 O. Kitchen.
 P. Chapel.

d Anti Room.
 e Portico.
 f } Little Rooms, with
 g } Books, Statues &c.
 h }
 i }



fields at the expence of from 15 s. to 50 s. per acre.

There is no great difficulty necessary to discover the reasons of such large fortunes being made in this country by farmers; for hiring unimproved lands at a small rent, and finding very fine marle every where under them, they have made thereby such a vast improvement, that nothing less than a perpetual drought could prevent

fine: but the figure of *Coriolanus* himself, without dignity, haughtiness, or any great expression. The wife leading her two children, and smiling on them, is a figure of no expression: The colouring, however, and the back ground are good; the disposition indifferent.

Jacob and *Esau*, dark and disagreeable. *Giuseppi Chierera*. Continnence of *Scipio*. The profile of the *Spanish* Lady, wonderfully graceful. *Scipio's*, a bad figure, his countenance without expression: but the disposition of the group well imagined.

Persius and *Andromeda*: *Andromeda's* figure, a very good one, and the whole piece well coloured.

Procochiano. Death of *Lucretia*; the lights and shades bad.

Quintus Cincinnatus.

Guido. *Joseph* and *Potiphar's* wife: None of this famous painter's bright and glowing manner. The colouring hard and disagreeable.

large crops. Their soil is in general a very light sandy loam, which in years which are more inclined to wet than dryness, throws out great crops; the very wettest that can come are not too much for their lands: every one, I believe, will allow that the chances of the seasons, in this moist climate, are more in their favour, than if their soil was of the heavy cast. Let us instance the farm above specified:

A faint's head.

Cupid.

Assumption; bad.

Rubens. Flight into *Egypt*. A good picture; but the figures disagreeable, especially *Mary's*, who is a female mountain. The drawing appears to be indifferent.

Birds.

Titian. *Venus*; the colouring gone off, hard and disagreeable.

Venetian lady; colours gone.

Woman's head; ditto.

Dominickino. *Lot* and his daughters; dark and disagreeable.

Abraham and *Isaac*, (in the landscape-room) rather in a dark stile.

Carlo Maratt. A landscape; not in his bright manner.

Judith and *Holophernes*; dark.

Madona, reading.

Apollo and *Daphne*.

Magdalen and angel.

l. s. d.

100 acres winter corn, at
 $3\frac{1}{2}$ qr. *per* acre, 350 qr.
 and as a small part of it
 is rye, say the price is
 1 l. 10 s. - - -

525 0 0

250 acres barley and oats, by
 far the most of the former,
 at $4\frac{1}{2}$ qr. *per* acre, 1125
 qr. at 16 s. - - -

900 0 0

50 pease, 4 qr. *per* acre, 200
 qr. at 1 l. 4 s. *per* qr.

240 0 0

The methods of laying the
 profit by a flock, are so

Carry over, 1665. 0 0

Vernet. Two views of a storm; both exceeding fine.

Salvator Rosa. A rock; very fine.

F. Bolonese. A rock.

St. John Baptist.

Onionte. Two landscapes.

L. Giordano. *St. John* preaching.

Claud. Loraine. Landscapes; river and bridge,

Pegasus.

Argus.

Apollo keeping sheep.

Three others.

Repose in Egypt.

In these landscapes, *Claud's* elegant genius shines with uncommon lustre.

Lucatelli. Two landscapes.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
	Brought over,	1665	0	0	
various in different coun- ties, that I believe the me- dium of what is generally known is nearest the truth; and that is 10 <i>s.</i> <i>per</i> sheep in lamb and wool, upon an average; that on 900 is - - 450 0 0					
	20 cows, at 5 <i>l.</i>	-	100	0	0
Hogs	-	-	50	0	0
			2265 0 0		

Hamilton. *Jupiter* and *Juno*; colouring bad;
her neck and face the best.

An. Carrach. *Polypheme* and *Galatea*; the draw-
ing strong and fine.

Conca. Two altar-pieces; indifferent colouring.

Albano. Holy family.

P. Laura. Two pieces of boys and flowers.

Raphael. *Madona* and child; drawing and
colouring very fine.

Holy family: but *quere* of both to
the connoisseurs in originality.

Parmegiano. Woman in a cave; pleases me
better than any piece in this collection.
The face very expressive, extremely
delicate, finely turned, and the dra-
pery exquisite, displaying the round-
ness of the limbs through it in the
happiest taste.

This slight calculation takes in no beasts fatted with turnips, because these are uncertain, and a variable crop; and other branches of profit are purposely omitted, that no one might, *on the whole*, think it over-strained. As to his expences, a few of the principal articles will shew that no one can run them up to any thing considerable.

P. Veronese. *M. Magdalen*, washing our Saviour's feet.

Bassan. *Christ* carrying the cross.

Lanfranco. Youth and old age, two pieces.
The old man very fine.

Angel appearing to *Joseph* in a dream; dark stile.

And. Sacchi. *Abraham, Ishmael, &c.*

Cypriani. *St. Anne*, and *St. Cecilia*. The colouring very fine; the attitudes admirable, and the drapery graceful.

The object most striking on the north side of the park, is the lake, which is of great extent; the shore is very bold, all covered with wood to a great height, and on the top stands the church. The plantations in general are sketched with great taste: In the number of acres many exceed them; but they appear to various points of view, infinitely more considerable than they really are. At the north entrance into the park, they are grand; you look full upon the house with a very noble back ground of wood; the obelisk just above the center; with an extent of plantation on each side that renders

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, tythe, and town charges, at 6 <i>s.</i> <i>per</i> acre,	330	0	0
Oats for his horses, as all spring corn is before charged; all the 30 are not in constant food, but run in the farm-yard; say therefore, 120 qr. at 12 <i>s.</i> - - -	72	0	0
Seed for 400 acres of corn, including the grasses sown with 200, on a medium at 9 <i>s.</i> <i>per</i> acre,	180	0	0
Six servants, - - -	120	0	0
Six labourers, - - -	150	0	0
Wear and tear, say - - -	70	0	0
Harvest, on a medium, 4 <i>s.</i> an acre, - - -	80	0	0
	1002	0	0

the view really magnificent. Nothing can be more beautiful than that from the church; the house appears in the midst of an amphitheatre of wood, the plantations rising one above another. Another point of view which I would recommend to you, is the vale on the east side of the park. The north plantation stretches away to the right, with vast magnificence, the south woods to the left, and joining in the front, form an extent that has a noble effect.

Produce, - 2265 *l*.

Expences, - 1002

Profit, 1263

Here we find a regular income of near 1300 *l*. a year, on a medium of prices and seasons. I have no doubt but that 1300 *l*. has some years been carried to near 3000 *l*. But without advancing it so high, it is very plain that a long lease of a good *Norfolk* farm, is infinitely preferable to the fee simple of it:—and that there is the greatest prospect of seeing this kingdom, a land of yeomenry: a thing not to be dreaded, for better landed property, while it lasts, can never exist. The change, however, presently ensues.—In addition to this remark, I might observe that a *Norfolk* farmer, Mr. *Mallet*, above mentioned, has lately purchased estates in the parishes of *Middleton*, *Tefterton*, and *Hockham*, to the amount of 1700 *l*. *per annum*: This remarkable person has made his fortune in less than 30 years, and on a farm consisting of not above 1500 acres of land, which is by no means the largest in this county.

Let me further add, that, since the above was wrote, I am informed, on undoubted authority, that Mr. *Mallet*, in

January, &c. 1768, had 280 fleers fattening on turnips, and artificial grass hay. And this on a *corn-farm*!

Before I quit this region of farmers, I should not forget to tell you that the *French* account of the *Norfolk* husbandry, which *M. de Boulainvilliers* has introduced into his *Les Interets de la France mal entendus*, tom. 1. p. 136, &c. is full of mistakes; and in particular, where he mentions the vast improvement by lucerne; for not a sprig of lucerne have I found in the fields of a common farmer.

LABOUR.

In Winter, 1 s. a day.

In Spring, 1 s. 2 d.

In Harvest, 2 l. 12 s. 6 d. or 3 l. for the harvest, besides meat, drink, and lodging. It lasts from a month to five weeks.

Hoeing turnips, 3 s. the first time; 2 s. the second.

Ploughing *per* acre, 2 s. 6 d.

PROVISIONS.

Bread,	-	-	2 d. <i>per</i> lb.
Butter,	-	-	6
Mutton,	-	-	4
Beef,	-	-	4
Veal,	-	-	3½

Candles,

Candles, - 7 d. per lb.

Coals, 1 l. 1 s. 0 per chaldron at *Lynn* *.

* The country around *Rainham*, the seat of Lord *Townshend*, is rich and finely cultivated, and the situation of the house, the park, and the water, very desirable: the building itself is rather in the stile of an exceedingly good habitable house, than a magnificent one. But the famous picture of *Bellisarius*, by *Salvator Rosa*, has more expression in it, than most of the paintings I think I have seen. Ask to see Lady *Townshend's* dressing-room; it is furnished with prints, stuck with much taste on a green paper.

The first appearance of *Houghton*, the celebrated seat of the Earl of *Orford*, built by Sir *Robert Walpole*, is that of several very magnificent plantations, which surround it every way. In the road from *Syderstone*, they appear, I think, to the greatest advantage: they are seen to a large extent; with openings left judiciously in many places to let in the view of more distant woods; this changes the shade, and gives them that solemn brownness, which has always a very great effect. The flatness of the country, however, is a circumstance, which, instead of setting them off, and making them appear larger than they really are, gives them a diminutive air, in comparison to the number of acres really planted: for were these vast plantations disposed upon ground with great inequalities of surface, such as hills rising one above another, or vast slopes stretching away to the right and left, they would appear to be almost boundless, and shew twenty times the extent they do at present. The woods

In my way from *Houghton* to the sea-coast, by *Hunston*, &c. I found much

which are seen from the south front of the house are planted with great judgment, to remedy the defect of the country's flatness; for they are so disposed, as to appear one beyond another, in different shades, to a great extent.

In the house you enter, first, the great hall, a cube of 40 feet; which, bad as the proportion is, is certainly a very noble room: yet one would imagine the architect purposed to destroy the effect of so large an one, by sticking three quarters around it, what is called a gallery:—Opposite the chimney is an exceeding fine cast of the *Laocoon*. From the hall you enter the saloon; which, but for height, would be one of the finest rooms in the world. It is 40 by 30; and 40 high. To the left you turn into a drawing-room, 30 by 21, hung with a yellow damask. Out of that into the blue damask bed-chamber, $22\frac{1}{2}$ by $21\frac{1}{2}$. Then into a very small dressing-room, and next a small closet, out of which you enter the library, $22\frac{1}{2}$ by $21\frac{1}{2}$, which leads to the dining-parlour, 30 by 21; and that opens into the hall; so one side of the house is taken up with the foregoing apartments. The other side of the saloon is another drawing-room, called the *Carlo Maratt* room, from being covered with pictures by that master, 30 by 21. Out of which you enter the green velvet bed-chamber, then a dressing-room $21\frac{1}{2}$ by 18, then another bed-chamber the same size; next the cabinet $22\frac{1}{2}$ by $21\frac{1}{2}$, which leads into the marble parlour 30 by 21, exceedingly elegant, one side being

barren land, or rather reputedly barren; for a really barren soil, I do not believe,

being entirely of white marble; and this concludes the right hand side, opening into the hall.

Having thus run through the rooms, I should tell you that the *fitting up*, for instance, doors, door-cases, windows, and cornices, &c. &c. is magnificent: lastly, let me add that the collection of pictures which ornaments them, is most undoubtedly the first in *England*, after the royal. I made a few minutes of what struck me most as I viewed them, and here they follow: I submit them to your candour, not as the criticisms of a connoisseur, but the mere expression of my feelings, without any regard to names or reputation. I shall not mention one quarter of the pictures; an omission of no consequence, as the very ingenious Mr. *Horace Walpole* has published a complete catalogue of them. Many of the capital pieces are in what is called the picture-gallery, which was the green house; it is in one of the wings.

Rembrant. His wife. The hands and face most inimitable. The clear obscure wonderfully fine.

Abraham's sacrifice. The head of *Abraham* very great. The mixture of grief, piety and awe, finely pourtrayed; nothing can exceed it: and the lights and shades admirable.

Rubens. Mary Magdalen washing our Saviour's feet. Her figure most inimitably coloured, particularly the head and the tears.

exists in any large quantities ; the *Norfolk* improvers might turn these tracts of war-

tears. The heads of the old men vastly fine, and of a noble gusto. This picture is as different from *Rubens's* common pieces, as he himself was superior to the lowest dawber.

Titian. *Simeon and child.* His head exquisite, and the air wonderfully fine.

An. Carrach. *Virgin and child.* The child a very disagreeable figure. The head appears to be badly drawn.

Venus. The colouring disagreeable and without softness or delicacy : The drawing admirable.

Morellio. *Assumption.* Air of the virgin's head beautiful and graceful.

Carlo Maratt. *Virgin teaching the boy Jesus to read.* Air of the Virgin's head—The child—The colouring—Grace—and clear obscure, beyond all praise : most sweetly delicate and agreeable.

Virgin and St. Joseph. The colouring very disagreeable.

Christ's sermon on the mount. The figure of *Christ* without dignity or expression.

Poussin. *Holy family.* Drapery very good, particularly the Virgin's—the limbs seen through it.

Vandyke. *Rubens's wife.* A most celebrated picture ; but not an agreeable one : what strikes me most are the hands and

ren and sheep-walks into profitable farms. One of the greatest improvements in the country is Mr. *Curtis's* farm of *Sommer-*

and arms, which are finer than any I ever beheld : the drapery is likewise admirable.

P. da Cortona. *Christ in the garden.* Air and expression of the head excellent.

Dobson. *Two heads.* The expression of the faces wonderfully fine.

Velasco. *A Pope's head.* Amazingly expressive : every line of the face exquisitely painted.

Death of Joseph. Exceeding fine heads.

Vanderwerf. *David and Abishag.* The colouring and finishing of this piece is beyond all description. *Abishag's* naked body is inimitably done. Such a soft delicacy of flesh, so much brightness of clear obscure, and such a height of finishing as exceeds any thing of the kind I have met with. *Bathsheba's* face is extremely expressive, and finely painted. In *David* there is a fault ; his face is that of an old man, but the naked of his body is quite youthful, without those strong lines, and muscular traces which age ever leaves.

Mola. *Cocles.* Nothing can be finer than the attitude of *Cocles*.

field, belonging to Mrs. *Henley* of *Docking*. It consists of 1700 acres of land, all gained from sheep-walks ; which is now regularly

Quin. Matsis. *Usurer and his wife* ; full of that vast expression, usual in this master's pieces : the penury in their countenances is admirable.

Guido. *Consultation of the elders.* The finest picture in the collection. The colours — clear obscure — disposition of the figures — expression of the countenances and airs of the heads of the old men, beyond all imagination. The whole is so exquisite, that one cannot quickly leave viewing it.

Adoration. The delicacy of the boy beyond expression. The old man's head on the right side exceedingly fine, and very much in the stile of that in the *Consultation*, under the *Virgin*.

Dominichino. *Virgin and child.* The colouring disagreeable, with no brightness ; but the attitude inimitable.

L. Carrach. *Christ in the sepulchre.* The dead body very expressive, but nothing of the clear obscure ; light strangely diffused.

Salvator Rosa. *Prodigal son.* Prodigious expression. If a *Dutchman* is by he will make you observe the ragged shirt. — The whole picture is amazingly fine.

inclosed, and yields immense crops of corn: Infomuch that this farm has been mentioned as the best in *Europe*. The home-stall is worth your viewing if you travel this country; it is prettily planted, and very neat*.

* I would not have any one leave this part of the country without employing a few hours in viewing the environs of *Docking*, Mrs. *Henley's* seat.—The plantations, though small, are in a very pretty taste. Her temple is light and elegant, and well-placed, both for commanding a fine view of the country, and also as an object in sight of the house. The hermitage is as pretty a thing as any of the kind that I have seen. It is a little cottage of two rooms, situated in one of her plantations of shrubs and firs. The first room is walled with oyster-shells, the white side outwards, and the brown edges filed off; the pavement of clean small pebbles; the chimney-piece of grotto shell-work: At one end is the hermit's bed. The other room is wainscotted with very curious old carved wainscot, of *Henry* the VII's reign, and the ceiling, &c. decorated in a rustic manner, with scrolls and festoons of sea-weed, deal-shavings, and painted ropes, in a gothic, but neat taste.

From *Docking* I proceeded to *Snettisham*, the seat of *Nicholas Styleman*, Esq; where Mrs. *Styleman* has formed some very pretty plantations; particularly those upon a stream, which she calls *New-bridge* and *Catherine's-island*: This stream is managed with true taste; naturally it is only a ditch, but where this lady has improved it,

it

The road from *Snettisham* to *Lynn* is over a most sandy tract of land; which has the appearance of a desert*.

it is a winding river, and the greatest ornament to her plantations. On one part of its banks she has a very neat circular cottage for breakfasting, and near it a menagerie with a great variety of birds; in this part are all sorts of water-fowl. From her menagerie you cross the stream and pass along its winding banks to the grotto, which is contrived out of a boat, by cutting it in halves and fixing it together with a little addition. It is stuck full of spar, shells, sea-weed, coral, glass, ore, &c. all disposed with taste. The front pretty, but too regular, and not rustic enough; composed of the same materials on a ground of powdered sea-shells stuck in cement. The situation is agreeable, by the side of the river, close to a small cascade, and in the shade of several large weeping willows.—The stream is yet more beautiful in the other plantation, called *Catherine's-Island*; for it forms five little woody islands, with cool, shady, and sequestered walks about it, in a taste that does great honour to this most ingenious lady's fancy. The plantations behind the house have great variety, and are sketched out with much taste.

* This town is tolerably regular and well built; the market-place fine, but the market-cross, though much admired by some, appears to me to possess neither unity, proportion, nor elegance: It is not heavy; and that is all I can say for it. The shambles, however, which are

A good husbandman cannot view this place, without regretting the quantity of manure lost here, for want of spirit in the neighbouring farmers to bring it away: they might have vast quantities of coal-ashes, &c. and even be paid something for carrying them away; their waggons are for ever coming from the town empty, and

the wings, are much more consistent than the center, which is a mere clutter of unconnected ornaments: The theatre is convenient, very neat, neither profusely ornamented nor disgustingly plain; and although not free from faults, yet has none but what resulted from the architect being confined to fill up the shell of an old building which was raised for another purpose. The assembly-rooms are capacious and handsomely fitted up: They consist of three on a line; the first an old town-hall, 58 by 27, and of a well proportioned loftiness, would be a good ball-room had it a boarded floor, but at present forms a very noble anti-room. It opens into the ball-room, 60 by 27, and 22 high; which would have been an elegant one, if the architect had thought proper to throw his music-gallery backwards; for, at present, it is a mere shelf stuck in between the chimneys; an eyesore to the room. If he did it through confinement, for want of space, he should undoubtedly have formed his music-seats upon the plan of those at *Almack's*, at the end of the room: They might have waved in a scroll around the door of the card-room, mingled with branches
of

their lands in general poor. At one place, which is called the fort, is a heap of exceeding rich manure; which, in many towns I could name, would sell for above 100 *l.* and which suffers no other decrease than what high spring tides occasion, in washing part of it away; and it is all brought here in carts, at the expence of the inhabitants *.

of candles, which might easily have been rendered a great ornament.—The card-room is 27 by 27, and 22 high.—As the three are upon a line, it would have given them an uncommon elegance, had the openings from one into another been in three arches in the center supported by pillars, instead of the present glass-doors, which are mean. The eye would then have commanded at once a suite of 145 feet; which, with handsome lustres properly disposed, would have rendered these rooms inferior to few in *England*.—The town drives a very brisk trade in corn, wine, coals, and to the *Baltic*: possessing about eighty sail of ships.

* From *Lynn* I took the road to *Narford*, the seat of *Price Fountain*, Esq; built and furnished by the late Sir *Andrew Fountain*: The house is a good one, but not the object of view so much as the curiosities it contains; amongst which nothing is so striking as the cabinet of earthenware, done after the designs of *Raphael*; there is a great quantity of it, and all extremely fine. The collection of antique urns, vases, sphinxes, &c. &c. is reckoned a good one; but what
gave

I passed into *Suffolk* by way of *Stoak* and *Thetford*; and found a vast quantity of land quite uncultivated, which in this country surprised me much, especially as I was informed marle is in many places to be found, where no use is made of it. The landlord of the Crown at *Stoak* has an acre of burnet, which is, I think, three years old. He sowed it broadcast, kept it perfectly clean from weeds a year, at the expence of above two guineas; but it has answered very well, for it has every year yielded a great quantity of hay, besides

gave me more pleasure than the venerable remains of this kind, is a small modern sleeping *Venus* in white marble, by *Delveau*; which in female softness and delicacy is exceedingly beautiful. The bronzes are very fine; and the collection of prints a capital one. As to pictures, I shall give you the names of a few which pleased me most; the masters names I minute as they pass at *Narford*, and without answering for their originality. I hint this, because the most pleasing picture in the house, the *Virgin and Child*, said to be by *Guido*, is precisely the same in figures, attitude, airs, &c. as *Mr. Butler's Corregio*, as appears by a print of the latter, I have seen in more collections than one. However, whether it is a copy or an original, the colouring is fine, and the air of the head and attitude admirably graceful.

Rubens.

A fruit piece by Snyders, the figures by Rubens; very good.

D

luxuriant food so early as the month of *February* for many horses. It is a regular crop, and appears to grow very quick.

In *July* 1767, he mowed it for feed, of which it produced as much as he sold for 5*l.* at 4*d.* per lb. and a large load of stover (straw), which his horses eat very freely. In *January*, 1768, it was fed off with sheep, being a thick and luxuriant crop. He finds it so profitable that he has sowed another (larger) field with it, with rye in *November* 1767, the seed for which he kept exclusive of the 5*l.*

- Albano.* *Christ taking down from the Cross*; exceedingly fine, the muscles strongly expressed.
- Tintoretto.* *St. Jerome.* The head fine; but the stile dark and unpleasing.
- Bloemart.* *Children of Israel gathering manna*; fine.
- Old Franc.* *Marriage of Cana*; a striking instance of wretched grouping.
- Holbein.* *Henry VIIIth and Anne Boleyn at a concert*; very fine.
- Quin. Matsis.* *Two old mens beads*; strongly expressive.
- Pelligrino.* *Pharoab's daughter finding Moses*; one of the best pieces I have seen of this indifferent master.

I forgot to tell you that the library is an exceeding good one and elegantly furnished.

In the neighbourhood of *Thetford* is an improvement greatly worth seeing; it is a complete farm, entirely gained from the waste, for so I must call an old sheep-walk. One of the best farmers in *England* (Mr. *Wright*) hired it, and has converted, by means of marle, a vast tract of uncultivated wild into a profitable arable farm; his son at present enjoys the lease. The soil is very sandy, but marle and clay have rendered it fertile, insomuch, that in years not remarkably dry, he raises as fine crops of rye, coleseed, and oats, as land of five times the rent yields in heavier soils. He has sown likewise some hundreds of acres with sainfoin, which has throve finely, and yielded considerable crops of hay. This farm consists of near 2000 acres, employs 45 horses, nine servants, and in harvest, fifty in the field. Nine hundred sheep, and 24 cows kept: and all this on a tract of land, which seven years ago was the habitation of nothing but a flock of sheep, not more considerable than what is now kept on the remaining sheep-walk and the artificial grasses. I should likewise remark that the marle dug on this farm has proved that it is not only the fat soapy kind which is of great benefit; for this is in general a hard chalky substance, much mixed with extraneous kinds of earth, and to appearance a very bad sort. It was as-

serted by many farmers that it would do no good, but the event has turned out very different. The clay, however, is allowed by all to be exceeding good *.

The road to *Bury* lies for some miles over a wild heath, over-run with bushes, whins, and fern, the wild luxuriance of whose growth displays evidently enough how greatly it would answer to break it up and convert it into arable farms; for a soil that has strength enough to throw out such vigorously growing weeds, would, if cultivated, produce corn in plenty; add to this, there is a stratum of marle under the whole country.

At *West Stow*, I observed a field of about two acres of carrots, in so driving a sand, that the wind by entering through the bars of the gate had drove a ridge up; and yet they thrived exceedingly well, and will, I doubt not, be a good crop. They belonged to ——— *Edwards, Esq.* †

* The Duke of *Grafton's* seat at *Euston* is but three miles from this farm; the park and plantations are well worth your viewing: they are very extensive and sketched with great taste. Remark particularly the approach to the house from *Bury*; it is exceedingly beautiful.

† A little out of the road lies *Livermere* and *Ampton*, the seats of *Baptist Lee*, and ——— *Calthorpe, Esqrs.* The two parks join, and the owners, with an harmony very unusual, made a noble

The country around *Bury* towards *London* is good, well wooded, and not a dead flat. The road to *Stowmarket* lies through a soil indifferently cultivated, but about a mile from the town it passes through a newly inclosed farm belonging to *John Symonds, Esq*; which is done in a very neat manner; the hedges are all of white thorn, and the banks regularly planted with several sorts of timber trees; the gates remark-

noble serpentine river through both, and built a large handsome bridge over it at their joint expence, by which means they ornamented their grounds to a degree otherwise impossible. In *Mr. Calthorpe's* park, the water forms a bend against a slope of wood, which has a very noble effect. Upon the whole, the river, considering it is formed out of a trifling stream, is one of the finest waters I have seen in the grounds of any private gentleman. *Mr. Lee* has a shrubbery of about 20 acres cut out of his park, that is laid out in an exceedingly just taste. The water and scoop in it are particularly beautiful: The first winds through a thickly planted wood with a fine bold shore, in some places wide, in others so narrow that the over-hanging trees join their branches from side to side, and even darken the scene, which has a charming effect. The banks are every where uneven, first wild and rough, and covered with bushes and shrubs, then a fine green lawn in gentle swells, with scattered trees and shrubs to the banks of the water, and seats disposed with great judgment:

ably good and all painted. Mr. *Symonds* has informed me that his method of preserving the excellence and beauty of the fences of this farm, after it got into a tenant's hands, was by making it an article of the lease, that he would keep them in repair, and accordingly he has always employed labourers in preserving and repairing them; without this precaution, they would have met with the same fate as all other fences in a common farmer's

at the termination of the water, the abruptness and ill effect of that circumstance (which is not trifling, for a water that has the least appearance of a river, should never be seen to the *end*) is taken off by finishing with a dry scoop, which is beautiful; the bed of the river is continued for some distance a sloping lawn, with banks on each side planted and managed with great taste; nor did I conceive that weeping willows could any where but hanging over water have been attended with so good an effect, as they have on the steeps of these slopes. Upon the whole, this shrubbery will entertain you, for although it contains much in common with all others, yet some strokes in it are new, and in a very pleasing taste.

Bury is a tolerably well built town, in a dry and healthy situation; many of the streets cut each other at right angles; but a parcel of dirty thatched houses are found in some of them not far from the center of the town, which has a very bad effect.

hands; and at the same time that he thus keeps them in fine order, it is at the tenant's expence, as the rent is proportioned to this circumstance. From this farm, which is rented by Mr. *Denton*, I met with nothing worth observing until I reached *Tostock*, a village six miles from *Bury*, in which there is a farm cultivated in a very masterly manner, by a gentleman who lives at *Bury*, Mr. *Orbel Ray*, the owner.

There is nothing above mediocrity in the husbandry of the neighbouring farmers; but this gentleman has improved upon their practice greatly. His soil is a light gravel; the first thing he did was to dig and spread an hundred loads of loam and clay over all his arable fields; and then throw them into a regular course of crops; viz. 1. Turnips. 2. Barley. 3. Clover. 4. Wheat; and raises exceeding fine crops of each. He ploughs four, five, and six times for turnips; harrows exceeding fine, and sows broadcast with a machine, of which the following is a sketch.

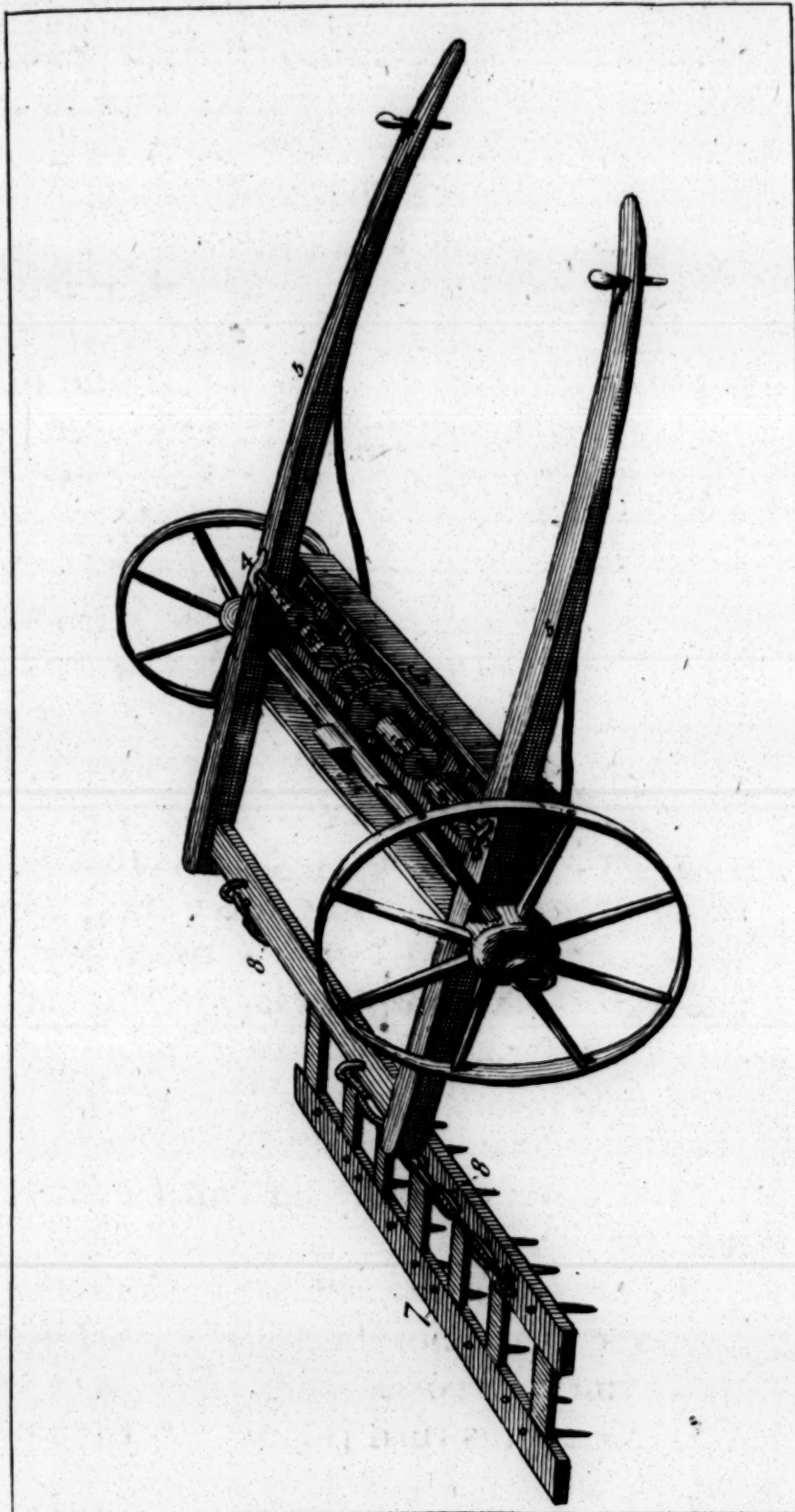
(1) The axletree fixed in the wheels, a cog around the middle of which turns (2) other cogs round an iron rod which runs through four copper feed-boxes (3. 3. 3. 3) thirteen holes in each box; and this rod rests in iron grooves (4. 4) in the frame

D 4 (5. 5.)

(5. 5) This rod is six feet six inches long, the breadth of ground it sows at a time: under the boxes is a long trough (6) divided into eight partitions, directly into which the seed falls from the boxes. (7) Is a harrow fixed to the hind part of the frame, by two chains (8. 8).

He finds from experience that it sheds the seeds infinitely more regular than the nicest hand. In his practice of the turnip husbandry, he has found that the seed never fails for want of rain, when sown past four o'clock in the afternoon. He hoes the plants out twice; applies them to the stall-feeding of beasts, for which purpose he has built very convenient sheds; and reckons the mean value of them *per* acre to be 2 *l.* 10 *s.* He gives the turnip land three earths for barley and oats, and gets very clean crops of 5, 5½, 6, and even 7 quarters *per* acre. The succeeding crop of clover he generally mows twice for hay, and values the crop on a medium at 2 *l.* 10 *s.* *per* acre. The clover lay he breaks up at one earth, the first year, and harrows in wheat; and of this grain he gets on a medium four and an half, or five quarters *per* acre.

These crops are all very considerable; however, I should observe, that besides the above mentioned claying, he every year manures all his turnip-land, at the rate of





12, 15, or 20 loads *per* acre of farm-yard dung; which he likewise manages in a very sensible manner. About *October* he carries in and spreads equally over his yard, 200 loads of moulds, generally loam; upon these he fodders all his beasts with the straw of the crop, and the clover hay, by which means all the urine of the cattle is soaked up, and the gutters of the stables and ox-stalls are all laid into it; when the winter is over, he stirs the whole up together, very carefully mixing it, when it is in good order for the land. He generally doubles the quantity brought in. The expences of this method appear, at first sight, to be high, but are not in reality; for it is a common one to carry out the dung and mix it up with turf before it is spread: now in point of labour there is no difference. Was chalk, marle, or turf used instead of loam, it would be an infinite improvement.

Mr. *Baker*, in an observation on this farm-yard management, says, “mixing dung with earth in the field where the compost is to be put out, I have found from 1 to 500 *per cent.* cheaper, than first drawing home the earth, and then carrying out the compost can be.” Upon this I must observe, that the comparison is to be made between a practice much recommended by various writers, and practised by several excellent farmers, viz. the carrying both the
dung

dung and earth to the field, where it is to be used, and forming them into composts *stratum super stratum*; and this of Mr. Ray's. The expence here is the same; for a pit, a pond, or bank, very near the farm-yard, is certainly used for the purpose; and at as small a distance as the earth in the other case is carried to meet the dung: the expence is equal. But this is by no means the comparison that deserves attention; the great point is the comparison between the earth which has laid a whole winter under the dung and cattle; and earth in a field which has had no such advantages: manage your farm-yard with the utmost attention you will, if it is not all under the cover of a roof, you lose much excellent manure by the drainings of the yard; but it is an object of peculiar consequence to filtre this fertilizing liquor as much as possible before it runs quite off: whatever the quantity of your dung, the water will speedily run through it; is it not of evident importance to have a thick layer of earth at the bottom to retain it so much the longer, and to be impregnated so much the better with the virtues of it? This earth, after laying in such a situation during a winter, and receiving the urine of great herds of cattle, after it has run through the litter, is a very different body from the same earth in the field; and all its acquired virtue is

to be set against the extra expence of one method over another; in my opinion, (and at present 1771 I speak from experience,) the advantage infinitely exceeds the expence.

The experience of this farm should awaken more attention to enquire into the nature of the stiff earths, under light sandy soils, than has been generally given to them. The common idea, as well as the practice of the generality of Norfolk farmers, would make one believe that all but pure clay, or pure marle, were useless: but as a few instances are found to the contrary, particularly this farm, it much behoves the lovers of agriculture, to try experiments on various substances, on the poorest soils; that the degree of virtue might be known, and compared with the apparent signs usually depended on. Suppose a chalky substance had so trifling an effervescence with acids, that it could not be termed marle, nor even pure chalk, it should be tried on the sand, spread in various quantities, and compared on one hand with the native soil unmanured; and on the other with a manuring of clay or marle pronounced good. A few variations of these trials would shew how far the real virtues depended on the apparent ones; and decide if no substance could be profitably used as manure, that was not either clay or good marle.

It

It should be remembered that the great fault of sandy soils, even when light to an extreme, is their dryness: that they are not near so sterile as some other land, appears from the fine crops they yield in extreme wet seasons. The poorest blowing sand, in a year remarkably favourable to it, will return greater crops than the poor chalks, or the blue pebbly gravels, in the best seasons for them: but being light to an uncommon degree, they are burnt up in any year not remarkably wet. Any stiff substance, whether a calcarious earth or not, gives a tenacity to these sands which enables them longer to retain the moisture of rains, and at the same time takes from the wind its power over them; when thus improved, they support without damage to the crops much more dry weather than before; and retain all their advantages in the very wettest seasons.

This is an object of very great consequence, for between *Brandon* and *Barton Mills*, *Thetford*, *Bury*, &c. there is a great tract of these waste sands, which are applied to feeding rabbits; many of them at a rent of less than a shilling an acre; I have been informed that some *Norfolk* farmers have rejected parts of these warrens on examining them, merely because they could not, on digging, find any of their fine *Norfolk* marle; whereas, for any thing

thing yet known to the contrary, the chalky substance, met with under all this country, may be better adapted to its improvement than better marles: I do not venture the fact as an assertion, but the contrary is not known by experience. The improvement of Mr. *Wright's* farm, speaks against the ideas of those cautious farmers.

Another circumstance is the method taken to discover the under *strata*; they have generally examined it by digging, which is so slow and expensive, that we may pronounce it utterly unequal to the purpose; a borer is absolutely necessary, that search may be made in numerous places, and to the depth of from 12 to 20 feet: beds of fine marle or clay might possibly be found under the chalky substance. But landlords should give their attention to these trials; they are not to be expected from others.

Mr. *Ray* has two experiments of the modern kind, which gave me much pleasure; an acre of Lucerne, and four of Timothy-grass. The first is in drills, two feet asunder. It was sown in 1765, cut three times last year; and I found it cutting for the first time this year, an exceeding fine crop, above two feet high; I inquired particularly about the quantity of food it yielded, and found that the exactest calculation, from what was already eat by four cows feeding upon it, was,

was, that it would last them five weeks. The bailiff told me, that, in his opinion, it would constantly through the summer maintain two cows; if so, the value of it is considerable, and exceeds clover. I can not, however, avoid remarking, that the intervals were full of weeds: therefore, even this experiment is not fully satisfactory. The four acres of Timothy were sown amongst oats in 1766, and I found it standing for hay; it appeared very coarse, but I believe will prove a crop of about 25 Cwt. *per* acre. It is not at all earlier than the adjoining pastures.

Since the former editions of these papers, the present worthy owner of these experiments, the Rev. Mr. *Ray*, successor to the late Mr. *Orbel Ray*, has been kind enough to inform me, that in the spring 1768, he dug up the lucerne in the trenching method two spits deep, and although this work was done in a very dry time, he found it scarcely sufficient to destroy the lucerne. Upon this digging, it was planted with potatoes, the crop of which amounted to 600 bushels, besides small roots left in the land: Mr. *Ray* designed sowing it in 1769, with lucerne broadcast, but his gardener informing him, that by omitting the last hoeing of the potatoes, many weeds had seeded; he thereupon, to clean the land completely, determined to fallow it in 1769,
and

and have another hoeing crop; and fixed upon carrots as a root, which he was thoroughly satisfied, must be very profitable to a farmer. These carrots he sowed in drills about 14 inches asunder, the beginning of *April* 1770. The advantages attending the drill husbandry, he soon became sensible of, and is confident that unless the land be remarkably clean, they never can with any success be cultivated broadcast. The crop yielded 700 bushels, exclusive of the many roots which broke in the drawing. The succeeding winter, 25 loads of dung were carted on, and the land in the spring drilled again with carrots, which were when this gentleman wrote me the account (*August* 1771) in a very promising state. By means of them he has gained a complete conquest over the weeds. This success has determined him to cultivate next spring this valuable root on a much larger scale. In the application of the crop, he threw the tops to some beasts who eat them very greedily; some of the roots he threw to the hogs in their sties, who throve upon them very much; but the stock of carrots was too small to fatten them completely, being desirous of preserving as many as he could for his horses. Whether they will do as an entire substitute for corn Mr. Ray much suspects; but the quantity he thinks may be very much diminished; and perhaps if
the

the horses are not employed in long and frequent journies upon the road, corn may be quite unnecessary.

He further informs me in the same letter, that the Timothy pasture is entirely lost; the grass natural to the soil has sprung up in its place; Mr. *Ray* regrets it, as he always observed it to be the favourite food of all sorts of cattle.

I cannot here omit observing, that the potatoe and carrot husbandry make, in Mr. *Ray's* Experiments, a very great figure; 600 bushels of potatoes, at only 1 s. come to 30 l. and 700 bushels of carrots, at the same price, to 35 l.; which are such noble crops, that they ought to encourage all farmers to cultivate them in common. But it is to be observed, that this land had been some years under lucerne, during all which time it had received numerous horse and hand-hoeings: Another circumstance much worthy of note is the success which here follows, trenching ground two feet deep, not only with carrots, to which root it must certainly be right, but also with potatoes. It is a very strong argument for deep tillage. Lastly, let me observe, that Mr. *Ray's* finding the drill culture of carrots so advantageous, deserves much attention; the difficulty of shedding the seed with a drill plough, has occasioned most gentlemen to sow broadcast, from the expence and trouble

ble of drawing drills, and dropping the seed by hand ; it should therefore be a great inducement, to the mechanical part of my readers, to attempt a drill plough for carrot seed, which, it is evident, would be a most useful implement.—Nor let me omit thanking this gentleman for the candid and obliging manner in which he gave me the above information ; I have no doubt but he will carry many parts of agriculture to an high perfection, much to his own honour, and the benefit of the kingdom.

From *Tostock* I went across the country to *Lavenham*, by a winding course through *Monks Bradfield*, the *Welnetams* and *Bradfield Combust*. I walked over the improvements of the Rev. Mr. *Lord*, rector of *Great Welnetham* ; this gentleman keeps in his own hands a farm, the soil of which is a stiff, strong, white clay, and was very full of springs ; such land is every where difficult to manage, but Mr. *Lord* has practised an husbandry on it, admirably adapted to keeping it in fine order, and to making it yield great crops. His first operation was cutting immense ditches around all his fields, which he did, not only for draining, but also for the beauty of opening, in a thickly inclosed country ; for the ditches are so great, that he has hedges not more than 12 inches high, and this again has brought on another effect, that of drying the land, by admitting the sun and wind

E more.

more. Next he hollow drained every field very completely; and after this, finding that the land through preceding bad management, was in extreme bad order, his wheat smothered by black grafs, &c. this induced him in order to get the land clean, to summer-fallow two years fucceffively; by ploughing and harrowing he destroyed the black grafs, wild oats, and other noxious weeds, and completely broke the texture of this stiff foil. He has generally carted the clay that arofe from the ditches on to his clover lays, and this has been an inducement fometimes to keep the land down for three years, but the vaft quantity of clay killed the clover, and brought up natural grafs, which bore the tumbrils like pasture ground; afterwards he ploughs it; if it has laid three years, and is foul, he gives it a double fallow. His general courfes of crops, are,

1. Fallow.
2. Barley or oats.
3. Clover, one year or two.
4. Wheat.

But fometimes the wheat is upon fallow.

His crops are as large as any in the kingdom, wheat from 4 to $5\frac{1}{2}$ qrs. ; generally 5. Barley and oats he gets up to 10 qrs. *per acre*.

Clover he fometimes fows on wheat, and gets very fine and perfectly clean crops, fo that he is able to fow wheat on it on one earth after lying two years.

Great crops upon very good soils are common; but this white clay is nearer allied to a very bad than a very good one; and Mr. *Lord's* husbandry offers several very important lessons to the farmers of this kingdom. The excellence, or rather the necessity of good ditches, and hollow drains on wet lands, appear strongly. The use of clay as a manure on a clay soil, is plainly evinced; and the benefit of clover on these soils, and also the keeping it two years, are no less evident. Barley has been thought an improper crop for stiff clay; 10 qrs. an acre, in Mr. *Lord's* fields, are a sufficient answer to that idea. These particulars are all curious; the public are much obliged to this gentleman for such spirited exertions of good husbandry; and I desire leave to return him my thanks for his very sensible account of it.

Before I leave the neighbourhood of *Bury*, I must observe, that I have seldom seen any place around which the farmers had such a spirit of purchasing manures; very ordinary sorts sell at *Bury* at 2s. 6d. and 3s. a waggon load of 80 bushels; I saw a-round the town in different places heaps of purchased manures.

LABOUR.

In winter, 1s. and small-beer.

In spring to harvest, 1s. 2d. and beer.

In harvest, 1 s. 8d. and beer.

Reaping wheat, 4 s. to 5 s. *per acre*.

Mowing spring-corn, 1 s. 2 d. ditto.

—— Grass, 1 s. 3 d. and 1 s. 4 d.

Hoeing turnips, 4 s. first time; 2 s. 6 d. second.

—— Beans, 6 s. first, 3 s. second.

Thrashing wheat, 2 s. a quarter.

—— Barley and oats, 1 s.

—— Clover seed, 5 s. a bushel.

IMPLEMENTS.

A waggon, - - 25 l.

A cart, - - 12 l.

A plough, - - 1 l. 10 s.

A pair of harrows, 2 0

PROVISIONS, &c.

Bread, - - 2 d. *per lb.*

Butter, - - 6

Mutton, - - 4

Beef, - - 3½

Veal, - - 4

Candles, - 7

Wood *per load*, 120 faggots, 18 s.

Coals *per bushel*, laid in, 1 s.

Their course of crops is, 1. Turnips. 2. Barley. 3. Clover. 4. Wheat. 5. Barley or oats; and, 1. Fallow. 2. Wheat. 3. Oats or barley. They plough four or five times for turnips, harrow fine, dung if possible; average value sold 30 s. an acre. Many of their gravelly loams do admirably well for this root, yielding I think larger

larger crops than I remember any where seeing. If they sell them, it is usually to be fed off with sheep, but some few farmers draw them for stall-fattening oxen; many of them for feeding promiscuously all their cattle, cows, young cattle and hogs: the manure they lay on for them is either 10 cart loads an acre of *Bury* compost, at 5s. or 6s. a load, or 20 loads an acre of farm yard dung; their loads about 36 bushels each. For barley they stir thrice, sow three or four bushels *per* acre; and reckon a mean crop at $3\frac{1}{2}$ qrs. Their clover they feed with all sorts of cattle, and particularly hogs, which I mention as a custom not very common. Some crops they seed; which is a very hazardous product. In wet dripping years, the crops run so much to hay that the seed is trifling, and excessively expensive in thrashing; but in dry years, when the clover is very low even on rich soils, and appears scarce any crop, great products of seed are gained, they will sometimes have from eight to twelve pounds worth for one acre. They plough up their clover lays, and harrow in wheat on one earth, sow two bushels, and reckon two quarters and half the medium of their crops. All the dung and composts which the turnips do not take, they spread on the clover land for wheat. White oats they manage the same as barley; but

for black, they plough but once; sow four bushels of each sort, and consider four quarters the mean produce. Some of the farmers in this neighbourhood have found peculiar advantages in sowing oats in great quantities, almost substituting them entirely instead of barley; they assert, that the superior product of this grain renders it far more profitable than barley; for the excess of the produce of oats is greater than the excess of the price of barley: Farmers who have been used only to throw in oats as a second crop after wheat or barley, will not readily comprehend this; but if the oats have the same justice done them as is common with barley, they most assuredly will find the truth of it. When they sow beans, which is an irregular crop with them, they plough twice, sow two bushels after the plough, on ridge-work; so that they come up in double rows on the top of the ridge; hoe them twice; and four quarters the mean produce. Others sow the beans broadcast over all the field, and then plough it into broad lands; after which they hoe the plants out like turnips: And others again sow in flat work every second or third furrow; but all hand hoe carefully, always once and generally twice, at the expence, in whatever method, of 9 s. an acre the two hoeings. All these methods have merit because they hand-
hoe

hoe; but it is much to be regretted that they are not acquainted with the kentish method of drilling them, and using the shim instead of one hand-hoeing; they would most assuredly find it much more effective, and not near so expensive. For pease they plough but once, sow two bushels; and reckon the medium at $2\frac{1}{2}$ qrs. Tares, the spring sort they often sow for hay, which they mow as soon as the blossom is full, for hay; the crops rise to $2\frac{1}{2}$ tons *per* acre, on one ploughing, and in different land; but on an average, $1\frac{1}{2}$ ton; if well managed will never be less than 2 tons. This is most profitable husbandry; for the tare is a meliorating crop, and if the crop is good, destroys the seed weeds, and pulverizes the land by its thick shade almost as much as a fallow; good crops of turnips have been gained on one ploughing after tares are carried.

In their manuring they have no strong peculiarities, the best farmers bringing dung from *Bury* is the greatest, at the distance of five miles; they reckon the expences to amount to from 10 to 12 s. a load, and as they bring about 80 (or 90) bushel at a time in their narrow wheeled waggons with four horses, it may be called 5 s. a common cart load. They mostly confine their cattle in the winter to the farm yard, where they make large quan-

tities of dung ; but they are not solicitous about buying foot, malt dust, &c. which they might get from a distance of 12 to 25 miles back-carriage. The farmers at *Baldock* in *Hertfordshire* give 8 *d.* a bushel for foot at *London*, and carry it 38 miles.

Hollow draining they understand very well, and practise it much on their wet lands ; they dig them from 25 to 30 inches deep, and fill them with bushes ; for the latter depth, the price complete is 2½ *d.* a rod. They find that that husbandry answers better than any other ; that manuring wet soils before they are drained is of little consequence, but that after draining, every spoonful of manure takes effect, and lasts as long as on ground naturally dry.

Their fences are very incomplete ; indeed it is their ditches alone that are any fence at all, for when they repair a hedge they cut off all the stuff close to the bank, and when the ditch is finished make a hedge on the top of it wholly of dead wood ; this hedge formerly was a staked and eddered one, but they have of late years got into the way of making what they call *sett* ones, which are nothing but short bushes stuck into a trench with earth laid at their backs ; a most slovenly and insufficient fence, that does not on an average last two winters. All hedges that are made only of dead wood are of no duration, they are

are presently demolished, and prove one of the most expensive articles on a well-fenced farm : all which inconveniencies would be remedied by introducing the plashing method ; not what is here called plashing, the binding down live wood with wyths, but laying them down at ease by flitting and cutting, as in *Hertfordshire*.

Good grass land lets here at 20s. an acre ; they apply it chiefly to dairying, and reckon that 2 acres are necessary for the summer feed of a cow, but they will afford a little sheep feed besides. The breed is a little mongrel sort that prove excellent milkers, yielding about 6l. a head product *per annum*, some much more. They keep many swine upon account of their dairies, in few countries more, which I attribute principally to their depending on clover for the summer food of those half or three-fourths grown. A dairy-maid will take care of 12 cows. The winter food is chiefly straw, hay they do not give till within three weeks of calving, and never more than baiting them on it morning and evening ; in the day they go with the other cows in the straw yard.

I shall here insert the method of conducting a dairy, pursued by a farmer's wife in this neighbourhood, who for thirty years was reckoned an excellent manager.

No

No calves to be weaned till *Christmas* is turned ; let them suck six or seven weeks ; then give them bran and oats, and a pint of flet milk in their pail of water, with some hay by them ; and continue this till grafs is ready for them. If they are for the butcher, do not keep them more than 7 or 8 weeks.

Give your cows hay at night and morning 3 weeks before calving.

Cows are not at their prime till 5 or 6 years old ; they last good till 14 or 15 years old.

If you dry a cow in summer, tye her up to hay a week or so ; sometimes bleed her and give her a pint of vinegar, and when you milk, dont milk her clean.

Begin to milk in summer at half an hour after four o'clock in the morning.

Begin in the afternoon before six.

The dairy-maid should always be up in the morning between three and four o'clock.

For 22 cows, Mrs. *How* (who gave this intelligence) was in her dairy regularly with her maid from between three and four o'clock in the morning, and had not finished till twelve at noon, sometimes with two maids.

The dairy must be washed every day.

For a dairy of 40 cows, 20*lb*. cheeses the right size,

One

One churn sufficient for 40 cows. *N. B.*
None used but barrel churns.

The cheefes to be turned and wiped every day, from the making till they are hard; after that, every other day.

Two meal *Suffolk* cheese, at 3 *d.* or 3½ *d.* per *lb.* is made of the night's milk skimmed the morning following, and then mixed with the new milk of that morning.

Four meal cheese, is made of three meals of skim-milk and one of new milk; sells at 2 *d.* or 2½ *d.* per *lb.* this is more profitable than the other to the farmer, as the greater portion of butter made, is superior to the difference of the price of the cheese.

The cream for butter to be kept constantly stirred three or four times every day, and shifted every day from one tub to another.

Six milk-pails are necessary for a dairy of 22 cows, and 10 for a dairy of 40 cows.

Hemp cheese cloths are the best; for a cheese of 20 *lb.* they should be yard-wide and yard and half long. For a 12 *lb.* cheese, three quarters wide and ell long: Hemp of a yard wide for this purpose is 1 *s.* a yard; three-quarters wide, 8 *d.*

Twelve cheese-cloths are necessary for 22 cows, and also 4 wiping cloths made of pickling at 5 *d.* a yard."

All these are matters of some consequence in a dairy farm; small æconomical objects,
2 which

which separately taken have no great appearance, make an essential difference in a twenty years lease; and saving money should be the grand aim of every farmer, that at the end of his lease he may go into a larger business: Let the farmer save as much as possible, provided he puts his savings out on that security which will pay him best — the improvement of his land.

There is not much grazing in this country; some farmers buy in a few beasts for grafs, of a small size, and find it more advantageous than dairying; and many of them winter fatten with turnips and hay.

Swine fatten to about 15 stone.

Flocks of sheep are very small, so they never fold. They have several methods of stocking, particularly the following.

1. Buying wether lambs in *August*.
2. Buying ewe lambs in *August*.
3. Buying old ewes in *September*.
4. Buying two years old ewes.

All these methods have their advocates, who think each the most profitable.——

Whatever the stock, they turn them first into the stubbles, and then the pastures, and keep them hard through winter (except the ewes when they have lambs) give them a few turnips in the spring, turn into clover in *May*, and sell fat at harvest. In this way the wethers will double or treble their

their cost. The old ewes are sold fat with their lambs in *September* or *October*: They do not shear more than from 1 to 2 *lb.* a head from any of their sheep.

In their tillage, they reckon four horses necessary for one hundred acres arable land; some will keep six.

The best farmers break their stubbles between *Michaelmas* and *Christmas*; nothing but a small light swing plough used, the structure of which has great merit.

In the hiring and stocking farms, they reckon the following articles necessary for a farm of 200 acres, at the rent of 150 *l.* a year, 140 acres arable and 60 grass.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent - - - - -	150	0	0
Tythe - - - - -	25	0	0
Rates, &c. - - - - -	13	0	0
8 Horses - - - - -	96	0	0
Harnes - - - - -	20	0	0
10 Cows - - - - -	60	0	0
Hogs - - - - -	10	0	0
30 Sheep - - - - -	15	0	0
Poultry - - - - -	1	0	0
2 Waggon - - - - -	50	0	0
3 Carts - - - - -	36	0	0
4 Ploughs - - - - -	6	0	0
3 Harrows - - - - -	5	10	0
Rollers - - - - -	4	0	0
Carry over,	491	10	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	491	10	0
Fans, screen, bushel, forks,			
rakes, shovels, ropes, lines,			
picks, spades, troughs, &c.	20	0	0
Dairy utensils - - -	20	0	0
Furniture - - -	100	0	0
House-keeping the first year	50	0	0
Two servants wages - -	20	0	0
One boy - - -	3	0	0
One maid - - -	3	0	0
Two labourers - - -	50	0	0
Seed, 35 acres wheat - -	20	0	0
Ditto, 35 ditto spring corn	17	10	0
Ditto, 35 ditto clover - -	10	0	0
Ditto, 35 ditto turnips -	1	15	0
Wear and tear - - -	30	0	0
Hay, oats, and straw -	70	0	0
	906	15	0

But many of them hire much larger farms with such a sum, by means of leaving some articles to be answered by the first year's product, and by buying many implements at second-hand. The men who from experience know their business well, are, however, of opinion, that a man should have 5*l.* per acre to stock with. This man has 35 acres of turnips, which are more than he can consume, consequently he must sell, whereas it would be better to have it in

in his power to feed his own stock with them.

Land sells at from 28 to 32 years purchase.

Tythes are chiefly compounded, 2s. 6d. to 3s. 6d. in the pound common.

Poor rates, 1s. 1s. 6d. 2s. in the pound. The employment is all spinning wool, at which they are very constantly employed. All drink tea twice a day, and some thrice.

All the farmers have leases of 7, 14, or 21 years.

They carry their corn 24 miles; this, for a maritime county, is very far. *Ipswich*, *Colchester*, and *Maningtree*, are the ports. *Sudbury*, with a navigation, is within 11 miles; and *Fornham*, with another, within 7; but they are paltry rivers for coals only, without any merchants that have a regular trade.

Their soil is in general a red loam, called here a brick earth, and loose; with some fields of clay, others of light gravel; the mean rent is about 12s. an acre. Farms rather small, from 20l. to 150l. with a few of 200l. As to the general œconomy and management, take the following sketch of one: 250 acres.

80 of them grafs.

10 horses.

2 men.

2 boys.

5 labourers.

25 cows.

60 sheep.

I forgot

I forgot to tell you, that they seldom use above two horses in a plough; and always do an acre a-day in the stiffest fields. But with their double mold-board ploughs, they use three, and always a-breast. After an half-ploughing to draw the land into baulks, these ploughs in *shutting-up* do two acres a-day. Plough five or six inches deep, price 4 s. an acre.

At *Lavenham* I met with about two acres of *Lucerne*, drilled in rows two feet asunder, belonging to the Rev. Mr. *Davey*, the rector; it was sown by his predecessor, Mr. *Squire*, I think, four or five years ago; and answered greatly: Mr. *Davy* found it remarkably serviceable to him last summer twelvemonth, when every natural pasture and the clovers were burnt up; but he has some thoughts of ploughing it up, at which I do not wonder, considering the multitude of weeds *suffered to over-run it*.

At *Lavenham* is carried on a very considerable manufacture of fays and calimancoes; at which the workmen earn on a medium 5 s. 6 d. or 6 s. a week, and many wool-combers who earn 12 s. and 14 s. The church at this place is one of the most beautiful in point of external architecture that I have seen. The steeple is very high, and a remarkably fine one. It is unfinished; without any other ornament at top than four battlements at the corners, rising about 3½ feet

feet above the sides. In my opinion this *simplicity* is a source of its beauty, for the effect of viewing it is much greater than if the attention of the spectator was divided by spires or any other ornaments. The building, upon the whole, is light, uniform, and magnificent.

Several farmers at *Lavenham* have found uncommon advantage from cultivating the tick bean: they used to sow only the horse bean, but have substituted the tick for it. They sprain them by hand after the plough, so as to come up principally on the crown of three feet ridges; hand hoe them twice with much attention, and get very great crops of them; Mr. *Branwhite* has had 10 quarters an acre more than once: the general produce from 5 to 8 quarters. Wheat is sown after, and seldom fails of being a considerable crop—quite as good as after a fallow.

The road to *Hadleigh* lies through a rich and well cultivated soil, especially near that town. What induced me to take this road to *Sudbury*, which is out of the way, was the hearing of two Lucerne plantations, which I viewed very attentively; one broadcast, and the other transplanted.

The first, of 4 acres, belongs to the Rev. Dr. *Tanner*, rector of this parish, and prebendary of *Canterbury*. It is four years

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old.

old: I found it on a medium 25 inches high, that which was not cut (for about an acre and half had been mowed at different times;) it was thick and luxuriant, but far from being free of weeds. I remarked many strong ones, and many low trailing ones against the ground: It had been harrowed in Mr. *Rocque's* manner with an heavy harrow, made according to his directions, every year in *March*, which the Doctor thinks has been of great service in loosening the ground, though not in destroying the weeds altogether, such as docks or mallows. The soil is a fine, dry, light, healthy turnip land; but yields fine wheat, as I have learnt by inquiry: as to the produce, the fodder is excellent, and much beyond expectation in quantity and quality, and is the chief support of 14 or 15 horses and cows, from the latter end of *April* till *Michaelmas*, after which it is fed down close with sheep, till near *Christmas*.

It was sown with spring corn after turnips, but the Doctor is of opinion, that had the field been summer-fallowed for it, the Lucerne would have entirely choaked all other grass and common weeds.

Some *Dutch* clover and ray-grass grows with it, which is found advantageous: I do not dwell particularly on this part of the experiment, as my information was not

abso-

absolutely accurate ; but it yielded, I could plainly find, an immense quantity of green fodder.

* * *

The spring of 1768 was so very cold, with such cutting frosts every night, that the first mowing was later than usual, and but indifferent, but the produce has been very great since ; insomuch that the Doctor was obliged to make hay of a part of it the middle of last *July*, when he reckoned it would be fit to cut again before the time he should have occasion for it : Five saddle-horses and four cows have nothing else to eat, and five coach horses are daily soiled therewith, in the stable, more or less, according to their work. One part of the field was well manured with dung last year ; and the Doctor proposes doing the same by the rest this year ; and, after harrowing in *February* or *March*, to scatter some fresh seed where the plants failed the most.

The reader doubtless observes, that this account is in some respects different from that in the first edition of these papers, and in all much improved, and brought down to a later date : for these circumstances I am obliged to Doctor *Tanner* himself. I took the liberty of requesting, by letter, information respecting his *Lucerne* plantation ; and was answered in a complete

manner, with that perspicuity which alone enables me to give satisfaction to the reader, and that politeness which I acknowledge with the greatest pleasure.

The other experiment of *Peter Newcome*, Esq; consists of one acre on the side of a hill, the soil seemingly a stiff gravelly loam, with many stones in it; one corner of the field low and wet. The plants were set two years last *August*; the rows three feet four inches asunder, and one foot in the rows. They were cut twice the first year, four times last year; and the first time this year the 17th of *April*. I found on the dry parts of the field, the plants on a medium 13 or 14 inches high, but on the low corner they were mostly dead. The best were not thick, nor of a branching luxuriant growth; however, the intervals were by no means kept clear of weeds, for the surface, I found in general, nearly covered with them, notwithstanding it was a little loosened by a horse-hoeing. I found it was cut once oftener than *Dr. Tanner's*, but did not yield near so much food.

* * *

Since the above, I have been favoured with a letter from this gentleman, in which he informs me that he thinks his ground not half filled, and purposes plowing up
the

the crop to resow it in the broadcast method;
and adds, that he was not exact in registering the cattle maintained by it.

This letter is grown to such an immoderate length, that you must allow me to conclude it, by assuring you, how much I am, &c.

Hadleigh,
June 19th, 1767.

LETTER II.

FROM *Hadleigh* I continued my journey to *Sudbury*, an exceeding dirty, but a great manufacturing town. I made such enquiries as were most likely to gain some good information relative to their manufactures; and my intelligence ran as follows: it contains a great number of hands, who earn their livelihood by working up the wool from the sheep's back to the weaving it into fays and burying-crape, which are their principal articles. The spinning is here a poor business; a stout girl of 15 or 16, not being able to earn above 6 *d.* a day; but the combing is the best of all their employments, yielding from 12 *s.* to 14 *s.* a week; the weavers of the fays and burying-crape earn from 7 *s.* to 9 *s.* but the first price the most common. Besides these articles they weave ship-flags, which employ the women, and girls of seven or eight years of age, yielding the latter about 2 *s.* 6 *d.* or 3 *s.* a week. The whole manufactory works chiefly for the *London* markets; but some fays go down their river (which is navigable from hence to *Maningtree*) for exportation.

Essex from *Sudbury* is entered by an high hill, from the top of which is an exceed-

ing fine prospect into *Suffolk*. The country, all the way to *Braintree*, is in general good and rich; letts from 10 s. to 15 s. *per* acre.

Around *Henningham*, which is six miles from *Sudbury*, hops are much cultivated; more than 200 acres are raised near that town, and let on a medium at about 3 l. an acre, unless hired with a farm; in which case they are lett cheaper. The operations attending a crop, with the expences, are as follows:

				l.	s.	d.
7000 roots, at 5 s.	-	-	-	1	15	0
Planting,	-	-	-	0	5	0
Digging and dressing, 12 s. each	1	4	0			
<i>Note</i> , This price of 12 s. <i>per</i> acre for digging, (and their spit is nine inches) is exceedingly cheap; notwithstanding the looseness of the soil from constantly deep tillage.						
Tying,	-	-	-	0	12	0
Always two hoeings, at 4 s. each,						
frequently three,	-	-	-	0	12	0
Stripping,	-	-	-	0	1	0
Picking, drying, and duty 1 l. 10 s.						
<i>per</i> Cwt. and as they reckon 6½						
Cwt. a middling crop, it comes to	9	15	0			
3000 poles, at 1 l. 1 s. <i>per</i> 100 but as						
they last six years, only the sixth,	5	5	0			
				£.	19	9 0

Medium produce	6½ Cwt. at	l.	s.	d.
5 l. 10 s. 0 d.	-	-	35	15 0
Expences	-	-	19	9 0
Profit	-	-	15	6 0

In *Henningham* there is a woollen manufactory carried on of bays and fays; at which the weavers earn about 7 s. a week the year round; and combers 12 s. and 14 s.

In the neighbourhood of that place the course of crops is, 1. Fallow. 2. Wheat. 3. Pease. 4. Wheat, if the pease were good. 5. Turnips. 6. Barley. 7. Clover: this is an advantageous course for good ground. They plough three or four times for wheat; sow two bushels an acre, and reap on a medium 3½ qrs. For barley, they plough once or twice, sow four bushels, and get on a medium 4½ qrs. They stir thrice for oats, sow four bushels; and a mean crop they reckon 5 qrs. For pease they give but one stirring, sow two bushels, and get on a medium 4 qrs. For turnips they make their land as fine as possible, ploughing it four times, and they hoe them twice or thrice. They sometimes sow clover; and understand the husbandry of feeding hogs on it, and even cows all summer. They hollow drain their wet lands, often with straw at 2 d. a rod, which

which lasts some years. The proportions of one farm in this neighbourhood, are ;

90 acres all arable,	1 man.
60 <i>l.</i> rent.	1 boy.
4 or 5 horses.	3 labourers.
30 sheep.	

LABOUR.

In winter, 1 *s.* a day, and small beer.

In hay-time, 1 *s.* and beer, and a dinner,

In harvest, 2 *s.* and beer.

Reaping, 4 *s.* an acre.

Mowing corn, 1 *s.* 3 *d.* and 1 *s.* 4 *d.*

—— Grass, 1 *s.* 6 *d.*

PROVISIONS, &c.

Bread,	-	-	2 <i>d.</i> per lb.
Butter,	-	-	6 $\frac{1}{2}$
Candles,	-	-	7
Mutton,	-	-	4 $\frac{1}{2}$
Beef,	-	-	4
Veal,	-	-	4
Cheese,	-	-	3 $\frac{1}{2}$ made at home.
Coals,	-	-	11 per bushel.

Three miles short of *Braintree* is *Gosfield*, well noted for the seat of Lord *Clare*, and a fine park ; but I take the opportunity of mentioning him here, chiefly on account of a stroke in agriculture, most unusual in *Essex* ; which is the using oxen

oxen instead of horses, for all the purposes of draught. His Lordship, some years ago, keeping a farm in his hands, and making many improvements in his park, introduced this practice from *Gloucestershire*, by purchasing a team of oxen, with all their geers, and hiring a driver in that country for the instruction of his own people; at the same time he took a plan of a very complete ox-house, with fundry adjoining conveniences, which he erected at *Gosfield*.

This scheme you may be very sure was highly ridiculed by all the neighbouring farmers, who would as soon believe that an ox could speak as draw; but experience and ocular demonstration convinced them of the contrary; and in one instance remarkably, for a waggon with horses being *sett* in the village, and the ox-team passing by accidentally, the horses were taken off, after much rallying, and the oxen clapt too; who, to the amazement of the beholders, drew it out in triumph.

His lordship used them for the culture of his farm, as long as he kept it in his hands; and had once near 30 in constant work: he has ever since done all his business with them; such as carting in his park and plantations, carrying timber, and bringing coals, &c. from *Colchester* for his family.

family. By very exact comparisons between the expences of his oxen and the horses which he formerly kept for the same purposes, he clearly found there was a vast saving by using the first. Their food has constantly been hay in winter, and good grafs in summer, without any oats. But notwithstanding the clear superiority, none of the farmers have followed the example, although a number of boys in the parish, and many labourers have gained a full knowledge of their management, and are as expert in driving them and breaking young beasts to the yolk, as any of their men can be with their horses.

You will excuse my being thus particular, in my account of this introduction of oxen into *Essex*; but the novelty of the thing in that county (his Lordship's being the only team in it) the ridicule cast on it by the farmers, and the uninterrupted success it met with, has induced me to be more minute than otherwise I should have been. Before I quit *Gosfield*, I must inform you, that Lord *Clare* has a piece of burnet for the use of his deer in winter, which answers extremely well.

From *Gosfield* I proceeded to *Bocking* and *Braintree*, places adjoining, and full of manufacturers, who work up says, in general, and some druggets. By all the accounts I could gain of the weavers, I found

I found that they earned on an average about 9s. a week; wool-combers about 12s. stout girls, 15 or 16 years old, four-pence and five-pence a day at spinning; and girls of seven or eight, 1s. a week for rolling the weavers quills; all these prices are lower than the *Sudbury* ones. They further informed me, that in summer they did whatever husbandry-work they were able, being better paid for it; such as hoeing turnips and wheat, making hay, and harvesting.

PROVISIONS.

Bread,	-	-	2 d. per lb.
Mutton,	-	-	5
Beef,	-	-	3½
Veal,	-	-	4

One man who had a wife and four children, informed me that they eat half a bushel of wheat-flour every week.

Another rout to *Braintree*, very well worth an husbandman's travelling, though not the direct road, is by *Samford*, *Bardfield*, and *Saling*. About *Samford*, the soil is naturally very good, and greatly improved by hollow draining. The soil is a stiff clay, but when drained, is an exceedingly fertile, sound, dry, and what the farmers call *mellow* land. The arable letts from 12 to 16s. per acre, and the grafs from 15s. to a guinea. Clay-lands generally are

are so retentive of water, and so apt to bake with a hot sun, that the culture of them is a matter of great difficulty, both in the pulverization of them, and the gaining early feed-times; but these clays when hollow drained, are of so dry a nature, that after heavy rains they very soon admit the plough, nor does wet weather give the moulds that adhesion which is so pernicious in many countries. Whatever the weather is, the moulds exposed are always porous, and drop into powder upon the slightest impression of the foot, which is a circumstance of incomparable value; for few soils contain half the virtues of clays, when reduced to moulds. The farmers are by no means backward in making the best advantage of such an excellent soil. They manage it with due judgment, and reap accordingly uncommon crops. A course with them is, 1. Fallow, 2. Barley, 3. Oats. Also, 1. Fallow, 2. Wheat, 3. Oats. Likewise, 1. Fallow, 2. Barley, 3. Clover till June, 4. Wheat. Another, 1. Fallow, 2. Barley, 3. Beans; but few turnips are sown. For wheat they plough 4 times, sow 2 bushels, and reap upon a medium 3 quarters; and upon the better sort of land 3 and $\frac{1}{2}$. For barley they plow five times; four in the fallow year, throwing the land on to the ridge for winter by the fourth; then they take
the

the first opportunity of hard frosts to carry on their composts, at the rate of 20 and 30 loads *per* acre, which are farm-yard dung mixed up with the turf that grows around the barley fields, and prepared ready for the season of carrying; after this, they take the first opportunity of the lands being dry enough to plow and sow the barley, from the last week in *February*, to the middle of *April*; but if the seed is not in the ground in *March*, they despair of a great crop. They sow 4 bushels *per* acre, and reap, upon lands managed in the preceding manner, $5\frac{1}{2}$ quarters *per* acre; and at a medium, of all their barley-lands in general, $4\frac{1}{2}$ quarters. For oats they plow once, sometimes twice, sow 4 bushels, and gain in return, 4 quarters. Beans they plow for twice, (sometimes but once) sow 2 bushels, and reap 4 quarters.

I cannot help observing, that the above barley-culture is very good; it is an excellent practice to plow and sow in the spring, instead of giving preparatory plowings when the seed should be in the earth; for early sowing is a point almost sufficient to turn the scale in favour of bad land, in comparison with good otherwise managed. In *Suffolk* they generally give 3 spring stirrings, by which means it is common to see them

them sowing barley in *May*; but no great or good crops can be gained so.

The very ingenious Mr. *Baker* on this barley husbandry observes, the turnips are a much better preparation than fallow, and gives a calculation to shew the superiority; it amounts to 1 *l.* 3 *s.* in the two years; but he charges the turneps at 50 *s.* an acre; from Mr. *Ray*'s at *Tostock* but 30 *s.* is the most that can be allowed; so that this single article reduces the superiority to 3 *s.* Mr. *Ray*'s soil is peculiarly happy for turnips—managed in the highest pitch of perfection, and the turnips carted to stalls. But all this is not to the purpose, since the *Sampford* farmers never venture turnips on their clays, and are undoubtedly right in so doing, at least in the common methods of consuming them. I agree entirely with Mr. *Baker*, that cabbages would infinitely exceed the profit of either way; but you might as well talk of cauliflowers to them. The culture of clays is an object of very great importance, and to find out the most beneficial course of crops for them is much wanting at present; that used by these farmers, particularly, 1. fallow, 2. barley, 3. clover, 4. wheat, is excellent; for all the crops must be kept clean by it, and the land in good heart. Cabbages, I think, would be a great improvement on the tops of arched ridges, and carried off in carts made
on

on purpose, the horses to go double for walking in the furrows, and followed by the wheels: turnips would not do equally well, because they leave great holes in the land, and the farmers would be afraid of striking up the furrows with a great double mould-board plough in order to lay the land perfectly dry all winter; it would be cutting up many turnips, which they would not hear of, but in the cabbage husbandry, it is done of course. But if, as might be the case, dung enough could not be had for substituting them entirely, instead of a fallow, then I should drill beans, which if good room was given the rows, and excellent use made of both hand and horsehoe, would equal a fallow in utility, and at the same time give 3 or 4 qrs. an acre, that is about 4 *l.* *per* acre product: five, six, or seven qrs. might be gained, if the rows are thrown within 18 inches of each other, but the great crop is not so much the object as cleaning the land in a substitute for a fallow; the great object is the tillage of the soil; the beans should be in equally distant rows three feet asunder, which is a space that admits all sorts of operations; after these, the barley or oats would come, and then the clover and wheat. If calculation is applied to this course, it will be found very profitable.

Their grass-lands are likewise very rich in this neighbourhood, which may be judged of by the product of their cows, which at a medium is reckoned at 8 *l.* *per* head, when well fed. The particulars of a farm here, were as follows :

300 acres.	200 sheep.
200 arable.	10 horses.
100 grass.	3 servants.
30 cows.	8 labourers.
10 fatting beasts.	

Of another :

220 acres.	80 sheep.
180 arable.	10 horses.
40 grass.	3 servants.
20 cows.	4 labourers.

L A B O U R.

All winter to hay time, 1 *s.* a day and small beer, (used to be but 10 *d.*)

Mowing, 1 *s.* 6 *d.* a day and beer : *per* acre 1 *s.* 6 *d.* and 1 *s.* 8 *d.*

In harvest, 30 *s.* the harvest and board : lasts generally a month.

Thrashing wheat, (in common years) 2 *s.* a quarter, barley and oats, &c. 1 *s.*

Hoeing turnips twice, 6 *s.* 6 *d.* *per* acre.

Hollow draining from 1 *s.* 8 *d.* to 3 *s.* a score rods.

Much the same husbandry continues till you come to the lighter lands near *Brain-tree*; but at *Saling* the culture of barley upon

upon the above described principles, is carried to what I believe I may venture to call the highest pitch of perfection, by *John Yeldham*, Esq; who, upon an average of seasons and crops, manured and not manured, has for many years reaped 7 quarters *per* acre; and yet it is not an uncommon custom with him to take a crop of oats after one of barley; and this upon one year's fallow without any peculiar circumstances besides common good husbandry: his soil a strong clay, as before described, well drained. I mention this remarkable instance of excellent husbandry with due veneration; the worthy author of it well deserves being ranked among the first cultivators of his age; and to receive the same tribute of applause which the *Dubamel*s, and the *de Chateauxvieux* have enjoyed for their attention to objects of a more equivocal merit. I should remark that the farmers throughout this tract of country make their hollow drains only one rod asunder.

From *Braintree* to *Chelmsford* the soil is rich and fertile, and the country very pleasant. Their course of husbandry is, in general, 1. Fallow. 2. Barley. 3. Clover. 4. Wheat; and, 1. Fallow. 2. Wheat. 3. Barley; then manure well and wheat again: sometimes beans thrown in, which they sow broad-cast, and hoe twice. For wheat

wheat they plough thrice, sow an amazing quantity, from $3\frac{1}{2}$ to 6 bushels, (greater by far than ever I heard of) and reckon 3 qrs. a middling crop. They give two earths for barley; sow three bushels, and get on a medium 3 qrs. For oats they plough thrice; sow three bushels, (as *little* as six bushels of wheat *much*) 3 quarters they reckon the medium. For beans they plough but once, sow two bushels and an half; and get on a medium 3 qrs. and $\frac{1}{2}$, or 4 qrs. They stir their lands twice for pease; sow two bushels and half, hoe them twice, and reckon the mean crop at 5 qrs. In their lighter lands they frequently sow turnips, plough for them twice, hoe them twice, and sow barley after them. They use both foot and wheel-ploughs, frequently with four horses, and do something better than an acre a day. As to the feeding hogs with clover, they know little of the practice, thinking it dangerous. Their dairies are pretty large; and they reckon the profit of a cow at 5 *l.* a year.

A remarkable particular I observed in their husbandry, was the care with which they drain their wet lands. They make hollow drains, the main ones two feet deep, and the branches 22 inches; they lay some small wood at the bottom, and a good deal of straw upon it, and then cover the whole with earth. The price of this

work is two-pence *per* rod and their small-beer. It were much to be wished that this practice was more general, for it is an admirable one, and well deserves imitation. They find their wet lands, and especially those which are flat, to be so difficult to drain with the common water-thoroughs, that their crops are frequently damaged by wet years, unless they lay them dry in this manner.

State of a farm near *Braintree* :

130 acres.	30 cows.
100 <i>l.</i> rent.	2 men.
12 horses.	1 boy.
120 sheep.	1 labourer

constant, besides others at busy times. The land must be incomparably good to maintain such a stock.

LABOUR.

In winter, 1 *s.* 2 *d.* a day.
 In hay-time, 1 *s.* 6 *d.* and beer.
 In harvest, 2 *s.* and beer.
 Reaping wheat, 8 *s.* an acre.
 Mowing barley, 1 *s.* 8 *d.*
 Mowing oats, 1 *s.* 6 *d.*
 ——— Grass, 2 *s.*
 Mow and make hay, 5 *s.* 6 *d.*
 Hoeing turnips, 2 *s.* 6 *d.* each time.
 ——— Beans and pease, ditto.

PROVISIONS.

Bread,	-	-	1 $\frac{3}{4}$ d. per lb.
Butter,	-	-	6
Candles,	-	-	7 $\frac{1}{2}$
Cheese,	-	-	4
Mutton,	-	-	4
Beef,	-	-	4
Veal,	-	-	4 $\frac{1}{2}$

IMPLEMENTS.

A waggon, 20 l.

A cart, 6 l. 6 s.

A plough, 1 l. 10 s.

Chelmsford is a pretty, neat, and well built town. I forgot to remark that all the cart horses I saw from *Sudbury* to *Chelmsford*, were of a remarkable large size.

From the latter town I proceeded to *Billericay*; the country very rich, woody, and pleasant, with abundance of exceeding fine landscapes over extensive valleys. The husbandry, I apprehend, not equal to that in use about *Chelmsford*; for their principal course is fallowing for wheat, then sowing oats and laying down with clover and ray-grass; which is a very faulty custom on land which, like this, lets in general from 15 s. to 20 s. an acre; nor did I see many good crops. The principal manure they use about *Billericay*, is chalk, which they fetch in waggons from *Grays*, and costs them in general by the time they get it home,

home, $5\frac{1}{2}d.$ or $6d.$ a bushel : they seldom use it alone, but mix it with turf fresh dug, and farm-yard dung, and then lay it on for wheat, now and then for turnips, which are, however, seldom sown in that neighbourhood. All this manure is sometimes spread at the expence of $10l.$ an acre,

PROVISIONS.

Wheat,	-	-	-	$7s. 0d.$	a bushel.
Beef,	-	-	-	$0\ 4\frac{1}{2}$	per lb.
Mutton,	-	-	-	$0\ 5$	ditto.
Lamb,	-	-	-	$0\ 5\frac{1}{2}$	ditto.
Veal,	-	-	-	$0\ 5$	ditto.
Butter,	-	-	-	$0\ 8$	ditto.

From *Billericay* towards *Tilbury*, the husbandry continues much the same : but one thing is very observable, and that is, the prodigious size of the farms ; seven, eight, nine hundred, and one thousand pounds a year, are not uncommon. Mr. *Finch* of *Billericay* rents $1300l.$ a year ; and the famous farmer Mr. *Button* of *Mucking*, near *Horndon*, farms of his own, and what he hires together, $2500l.$ a year ; and it was said, he was going to increase it by purchasing $200l.$ a year more, which he would take into his own hands. He keeps 102 horses. The rent of these large farms runs generally about $10s.$ an acre.

You recollect my sentiments concerning the *Norfolk* farms ; but these in point of
size

size far exceed them. Indeed I thought *Norfolk* had been, of all other counties, the most famous for large farms, but this intelligence undeceived me: An *Essex*-man would hear you with scorn talk of any farmers being equal to theirs; and they certainly have some reason for this boasting. Many of the occupiers in what they call the hundreds, possessing three, four, and five hundred pounds a year *of their own*, besides what they rent of others. As to the public good, these *exceeding* large farms are not of the greatest advantage; but here a distinction is to be made between the *Norfolk* ones and these; for the latter being situated in a rich soil, might be split into smaller farms, to infinitely greater benefit than the former, which require each a considerable stock of sheep. The *Norfolk* farms likewise, having been nearly all sheep-walks, could only be improved by marle, and of course by those who were able to take large tracts of land;—for it is demonstrable, that had those walks been cut into *small* farms, they never would have been improved, the expence is so great. Large farms therefore have been (and will be, as to all future improvements) in that country, of as great public, as well as private benefit, as *smaller* ones in any other can be. Whatever land lets for ten shillings and upwards, without any

such improvement as the *Norfolk* marling, it is proof sufficient that it *might be* rented in small quantities.

Of all the roads that ever disgraced this kingdom, in the very ages of barbarism, none ever equalled that from *Billericay* to the *King's head* at *Tilbury*. It is for near 12 miles so narrow, that a mouse cannot pass by any carriage; I saw a fellow creep under his waggon to assist me to lift, if possible, my chaise over a hedge. The rutts are of an incredible depth—and a pavement of diamonds might as well be sought for as a quarter. The trees every where over-grow the road, so that it is totally impervious to the sun, except at a few places: And to add to all the infamous circumstances, which concur to plague a traveller, I must not forget eternally meeting with chalk-waggons; themselves frequently stuck fast, till a collection of them are in the same situation, that twenty or thirty horses may be tacked to each, to draw them out one by one.

After this description, will you——can you believe me when I tell you, that a turnpike was much solicited by some gentlemen, to lead from *Chelmsford* to the ferry at *Tilbury* fort, but opposed by the bruins of this country——whose horses are worried to death with bringing chalk through these vile roads. I do not imagine
that

that the kingdom produces such an instance of detestable stupidity; and yet in this tract are found numbers of farmers, who cultivate above 1000 *l.* a year. Besides those already mentioned, we find a *Skinner* and a *Towers*, who each rent near 1500 *l.* a year, and a *Read* almost equal; but who are all perfectly well contented with their roads.

I forgot to tell you, that near *Horndon*, on the summit of a vast hill, one of the most astonishing prospects to be beheld, breaks almost at once upon one of the dark lanes. Such a prodigious valley, every where painted with the finest verdure, and intersected with numberless hedges and woods, appears beneath you, that it is past description; the *Thames* winding thro' it, full of ships, and bounded by the hills of *Kent*. Nothing can exceed it, unless that which *Hannibal* exhibited to his disconsolate troops, when he bade them behold the glories of the *Italian* plains! If ever a turnpike should lead through this country, I beg you will go and view this enchanting scene, though a journey of 40 miles is necessary for it. I never beheld any thing equal to it in the West of *England*, that region of landscape.

King's-Head, Tilbury,

June 24, 1767.

LETTER III.

TILBURY Fort yields not a moment's amusement in recompense for the hours you may probably wait for the ferry; We were tolerably lucky, and after much bullying and some fair words, reduced the wretched time of waiting to about an hour. *Gravesend* is a detestable exhibition of the worst out-skirts of *London*.—It is *Wapping* in miniature. I had some business which led me to *Thong*, and was amazed to find no way of getting at it but through narrow lanes, as overgrown and dark as those of *Essex*; this parish and *Shorn* contain as much romantic variety of landscape as ever I beheld; the hills are wild, steep, and almost covered with wood, and rise into bold variations, between the breaks of which, vast prospects of the valley beneath, and the *Thames* winding through it, are every now and then seen; and from the tops of some of them most prodigious prospects of the whole country at large. The soil about these hills is in general sand and gravel, but had extreme good crops of oats on it, and tolerable ones of barley, with very fine clover and ray-grass: Some hop-grounds, but none equal to many others I saw. Mr.
Neale

Neale at *Thong* had some drilled pease, which looked very well, and about two acres of burnet on a sandy gravel; it had been fed, but made no appearance. The land letts in general about these hills for 8 s. an acre: including the wild parts of them, which are over-run with gorse and whins.

Between *Shorn* and the turning off to *Gravesend* in the way to *London*, I observed two fields of exceeding fine broad-cast Lucerne; one of them of several growths, having been cut at various times for feeding cattle in racks; from the number of oats among it, I apprehend it was sown with that grain last year, and those appearing when I saw it, sprung from the scattered ones. It pleased me greatly to see such fertile land put to this use; for the farmer must have a very good opinion of this grass to apply such rich soils to its production; land letting here from 20 s. to 30 s. an acre. I observed many very fine crops of sainfoine mowing for hay, between the latter named place and *Dartford*. The soil all chalk. The road made entirely of it; and by means of attending it well, is kept very free from holes, and is hard and level. The beauty of all this country (which, in respect of hill and dale, is finely variegated) is wretchedly hurt by the abominable custom of stripping up all the
the

the trees; infomuch, that they look like hop-poles. This vile custom is attended with not a fingle advantage; all the timber is ruined, and a very fmall quantity of faggot-wood gained. I obferved fcarce any thing but elms. The beans and wheat were exceeding good, and the oats very forward.

Between *Dartford* and *Shooter's-bill*, at *Bexley*, the husbandry is very good: I obferved it particularly, and gained fome information, which is worth minuting. The land letts from 16 s. to 40 s. *per* acre; but in general about 20 s. One farmer in *Bexley* hires 200 acres, at guineas. Their courfe of husbandry is, 1. Peafe; the pods for the *London* market, got off time enough to give two ploughings for, 2. Turnips. 3. Barley or oats, generally the former. 4. Wheat: but fometimes clover is fown with the barley, and then the wheat fucceeds that. They reckon a good common crop, fix or feven quarters of wheat and fpring-corn; which is very confiderable, and plainly proves the land to be very good, otherwife fuch a quantity of wheat could never be got after barley; but the introduction of clover muft be a better courfe; for that grafs mowed twice would abate any ranknefs in the ground, which threatened a laid crop of wheat. There is much fainfoin fown; many fields of which
produce

produce three tuns of hay *per* acre. Day-labour about that neighbourhood, is, in general, 1 s. 6 d. a day and beer the year round, except at harvest, then 2 s. and board : and the price of ploughing *per* acre, 8 s.

About *Lewisham* and *Blackheath*, &c. the country is mostly occupied by gardening farmers, who cultivate beans, pease, potatoes, carrots, cabbages, &c. for the *London* market, intermixed with wheat, barley, oats, &c. The soil at *Lewisham* on the hills is chiefly clay, but in the vales it is gravel ; with good tillage, and plentiful manuring, they convert the clays into fine flexible loams, the rent from 15 s. to 40 s. an acre. The common farmers are here very great slovens, even to sowing beans broadcast, and never bestowing any hoeing on them, but the gardening farmers dibble them in rows, and keep them perfectly clean by hoeing. They plant chiefly the long pods, and gather them green for market. Cabbages are another crop, which they deal much in, planting them in succession to last the whole year ; summer cabbages, called white hearts, they set equally distant two feet asunder, sell them in *July* at 1 $\frac{1}{4}$ d. or 1 $\frac{1}{2}$ d. each ; and there being 10890 on an acre, when planted in that manner, the amount is at 1 $\frac{1}{4}$ d. 56 l. 14 s. and at 1 $\frac{1}{2}$ d. 68 l. 1 s. and the crop is got off

off time enough for turnips or favoys, or winter cabbages. This is therefore a most profitable system ; but there is a great deal of trouble and attention necessary in it. After the cabbages are cut, they are carted home to an empty shed or barn to be dressed for market, that is, the stalk is cut off, and the dirty or yellow straggling leaves taken off, then every cabbage is dipt in a great tub of water which stands ready for the purpose : this is all done by women, who, as fast as they finish them, give them to a man who piles them up in a square clamp ; and in the cool of the evening they are loaded into a waggon very dexterously, so that it holds a great quantity. They get to market by 3 o'clock in the morning, and do not bring dung back, for four horses are immediately taken off, and sent home by the lad, that they may be set to work, and the man brings the waggon back with the other two. An annual sum is paid for a standing in *Spittlefields* market.

Spring plants sold by the bunch in *March* and *April*, called coleworts, are also very profitable to them. But although these gardeners do not bring dung back in their waggons, they buy large quantities at *Deptford Creek* brought in barges, which they reckon a cheaper way of getting it than by their own waggons. The common farmers use very little, but the gardening ones considerable

siderable quantities. The latter gain very great crops of wheat on the lands which they do not want for garden purposes, 5 qrs. an acre are not uncommon with them*.

* The country from hence to *London* is very finely variegated, richly cultivated, and exhibits a perpetual picture of the most pleasing kind. About *Blackbeath* it is particularly beautiful. *Greenwich* park, I believe, has as much variety, in proportion to its size, as any in the kingdom; but the views from the Observatory, and the One-tree-hill, are beautiful beyond imagination; particularly the former. The projection of these hills is so bold, that you do not look down upon a gradually falling slope or flat inclosures, but at once upon the tops of branching trees; which grow in knots and clumps, out of deep hollows, the cattle which feed on the lawns, that appear in breaks among them, seem moving in a region of fairy land. A thousand natural openings among the branches of the trees, break upon little picturesque views of the swelling surf, which, when illumined by the sun, have an effect pleasing beyond the power of fancy to exhibit. This is the foreground of the landscape; a little further, the eye falls on that noble structure the hospital, in the midst of an amphitheatre of wood. Then the two reaches of the river make that beautiful serpentine which forms the Isle of Dogs, and presents the floating millions of the *Thames*. To the left appears

PROVISIONS.

Bread,	-	-	2 d. per lb.
Butter,	-	-	8
Beef,	-	-	4½
Mutton and Veal,	-	-	5
Cheese,	-	-	4

appears a fine tract of country leading to the capital, which there finishes the prospect.

Quere? Is it an advantage or the contrary, to have the metropolis a part in such a prospect as this? I leave this to readers of taste to determine; but if the parts of one whole act at all by contrast, it surely is an advantage to combine numerous and striking objects. Nothing can be more truly rural than the scenes which this park itself exhibits beneath, and seem sufficiently in the *landscape*-style, to take off the uneasiness we feel from viewing a *mere prospect*. From *Highbgate*, where you look over a great plain, with *London* in the center of it, this uneasiness is strongly felt: and for this reason I should prefer the absence of the capital to its presence, in a view that had not something strikingly rural and picturesque to operate by contrast. *Quere?* If the latter scenes do not acquire in the eye of the imagination a more *Arcadian bloom*, as *Shenstone* calls it, from appearing in the same piece with so vast a city?—On the other hand, by the metropolis appearing, the picture is rendered too complete; for nothing is left to the fancy: the river with such amazing traffic, a scene for ever moving, would set the imagination at work in a moment to paint that

From *London* some business called me to several villages between *Barnet* and *Hatfield* in *Hertfordshire*: The country there is

that city which all lead to, and consequently figure it infinitely beyond the reality; something should in all views be left to the ideas of the beholder. I shall not, however, quit this delicious park without observing, that the Isle of Dogs, and the low grounds of *Essex*, are no addition to the prospect. What a glorious effect would result from a bold hanging shore covered with wood!

The hospital is a very noble building; the fronts chaste and elegant; but there wants a more magnificent center than the ranger's house in the park; which, from the river, has the effect of being designed as a part of the whole. The fronts, on each side the square, facing each other, are very beautiful; the pillars light and elegant, and those parts of the building which rise higher than the center at each end, have an admirable effect. When there are no *detached* wings, some variation should mark the ends, to prevent an abruptness, but the designing them in a just taste is seldom effected; they too often break the unity, and consequently divide the spectator's attention; but these are perfectly free from this fault. If I may, however, venture to insinuate a fault in these fronts, it is the height of the roof, which appears between the center and the ends: it rises too much, giving something of a heaviness to the building. The painted hall is a noble room 80 by 40, and 40
H high

chiefly grafs, the corn-grounds by no means carried fuch good crops as I expected; but the foil is in many places

high in the center, with a very beautiful cupola at one end, and a detached area at the other, of 40 by 35, and 30 high. The painted cieling is by fome much admired, but I cannot find in it any thing above a very mediocrity.

The chapel is much the moft worth feeing; the proportion is exceedingly beautiful, and forms one of the fineft rooms to be feen in *England*; it is 100 by 50, and 50 high: the ornaments are all white and gold; the cornice very elegant; and the cieling of the altar truly beautiful; the organ is fine. It is observable, that although a gallery, in the ftile of a fhelf, runs on each fide the room, yet it has not an heavy effect; which muft refult from a peculiar harmony of proportion. Nothing of this fort can ever be added to a room, without hurting the *general* effect; but in this the mifchief is lefs than I any where remember it. The little cieling-piece of the altar by *Brown*, representing cherubims; is elegant, and perhaps worthy the pencil of *Albano* himfelf.

On *Blackbeath*, finely fituated, is the feat of Sir *Gregory Page*: it is a noble building, with two handsome fronts; that to the fouth is ornamented with an *Ionic* portico. The hall is a very elegant room, adorned with handsome pillars, and other ornaments in a juft tafte. Out of it, on the left hand, you enter the dining-room, well proportioned, with a fmall recess for the fideboard. The fitting up, rich carving and gilding,

stone and gravelly. Grass is what pays best: it sells frequently for 50 s. 60 s. and 70 s. a load; which is 36 trusses, each

gilding, on a white ground; chimney-piece of white marble, polished and beautiful: It opens into the gallery, which is 60 feet long, 20 broad, and 20 high, hung with crimson; ceiling, cornice, door-cases, and all the ornaments; gilt carving, on white grounds. In this room are the following pictures.

Battoni. Judgment of *Solomon*, painted in a very pleasing stile; the figures and group fine; but the diffusion of the light very incorrect. The expression of it across the child on the floor is good; but from whence comes it? It is by no means in unison with the rest.

Peter Vanderwerff. *Adam and Eve*, and *Stratonice*, two pieces: the female figures are uncommonly soft, delicate, and elegant; the expression of the naked is pleasing.

Meiris. A poulterer's shop, and a fishmonger's ditto, its companion. Very minute expression, highly finished: the exact imitation of the basket will please you.

Rubens. *Juno and Ixion*.
Rubens and his Mistress.
David and Abigail.

These pieces, which are fine, are in his general stile, the females capitally plump, but they are not of a striking expression.

A fruit and fowl-piece by *Snyders*, the figures
 H 2 of

56 lb. Two things here are very bad, their ditches and their ploughs, both very material to a farm. Too many of the

of this master: *Snyders'* share in this piece seems to be much superior to *Rubens'*. The close and lively imitation of nature in the fruit and fowls is very fine. *Bassan.* Landscape with cattle. The angels appearing to the shepherds. Dark, coarse, and unpleasing; they totally want all brilliancy of colouring.

Next we entered the drawing-room, 25 by 20, ornamented in a rich taste; the chimney-piece handsome. It is adorned with twelve pictures, containing the history of *Cupid* and *Psyche*, by *Luca Giordano*, very fine. Out of this you go into the saloon, 35 by 25, the chimney-piece of which is exquisitely elegant; the door-cases and all the ornaments beautiful; the slabs fine, and the pier-glasses large. The principal pictures are,

The *Good Samaritan*, by *Baldelochi*, an unpleasing piece.

Calabrere. Return of the prodigal Son: a dark unpleasing picture; the attitude of the son is disgusting and inexpressive.

The dressing-room is very beautifully ornamented, and contains a most capital collection of pictures; particularly twelve pieces by the Chevalier *Vanderwerff*, which are worthy of a month's incessant admiration; the subjects are as follow:

Shepherds and shepherdesses dancing. The attitudes of these figures are inimitable, and sketched with

hedges are dead ones; boughs interlaced four feet high in stakes, and white thorn planted by the side of it, intermixed with

with much more grace than might be expected from a painter who *finished* so exquisitely. The colouring of the naked, the soft and delicate expression of the roundness of the breasts and limbs, and the wonderful brilliancy of the whole piece, which is finished to an astonishing degree of elegance, are all inimitable.

The Roman Charity. Very elegant; the naked of the woman fine.

Venus and Cupid. Beyond all imagination elegantly pleasing; the naked body of *Venus* is more beautiful than one could have thought the power of colours could have reached. The softness is such, that the flesh seems as if it would yield to the touch; and the harmony of the colouring so bewitching, that a more tempting delicious figure cannot be conceived: the general brilliancy is very capital, nor can any piece be in higher preservation.

Joseph and Potiphar's wife. Never painter was more happy in the choice of his subjects: for sure the difference between naked women in the age of pleasure, and the martyrdom of saints, form a contrast sufficiently decisive. *Potiphar's wife* is exquisitely painted.

King Zeleucus giving his kingdom to his Son. Extremely fine.

Bathsheba bathing. Exquisitely done.

The Choice of Hercules. The figure of *Vice* made in this picture (as it is in the works of the poets) much the most tempting lady; she is indeed inimitably soft and delicate.

fallow stakes, and without any ditches: this practice is a wretched one.

After they are grown up and come to be

Mary Magdalen reading in a grotto. Astonishingly executed; the attitude, colouring, softness of expression beyond all description: remark particularly the plaits of the flesh, occasioned by her leaning forwards, under her left breast; the feet also remarkably fine.

Message from the angels to the shepherds. Very fine. The light comes all from the angel, who is in a position not advantageous for diffusing it agreeably.

Our Saviour and Mary Magdalen. Finished, like the rest, in a surprising manner. There appears an unnatural twist in her thigh and leg.

Chev. Vanderwerff, his wife and daughter. Very fine.

This is a slight sketch of the surprising excellencies of these pictures. No one can view this house without regretting the want of a day to examine each piece in. I do not remember having seen any thing in the same stile nearly equal to them but Lord Orford's *David* and *Abisbag* by the same master.

In this room are likewise four exceeding fine pieces of fruits and flowers, by *Van Huysum*: those containing the grapes are beyond all description exquisite; the insects, drops of water and the cores of the fruit appearing through the skin, are wonderfully done.

A Landscape. The trees, and the expression of the light through their branches, striking!

Next we entered the crimson bed-chamber which

plashed, they become very strong, they lay down an immense quantity of boughs, many bigger than a stout man's thigh, and

which is very handsomely ornamented. The bed is placed in a part separated from the rest of the room by pillars. The dimensions 30 by 16. This room opens into the library, 45 by 20; the pillars are handsome, but do not divide the room in an agreeable manner.

I should further remark to you, that the particulars of the fitting up and furnishing, not mentioned in the preceding account, are very elegant. The rooms are hung with crimson, and green silks and damasks; and the cornices, ceilings, door-cases, slab, sofa, and chair-frames, all carved and gilt in a good taste. The chimney-pieces are very beautiful, being some of them elegantly decorated with wreaths and festoons of wrought marble. Most of the slabs are very fine, of various sorts. There is a very beautiful collection of ornamental *Dresden* and *Chelsea* porcellane, scattered about the house.

Although *London* cannot furnish many agricultural observations, yet there are buildings, paintings, &c. worthy of remark; some I have viewed which have never been mentioned by any writer at all, and others that have never been described. I shall insert them without ceremony in the order I viewed them.

From the size of *Northumberland* house, one would imagine there were more rooms of magnificence and shew than are found in it; at least if all worth seeing are shewn. We saw only one suite of rooms; entering a common dining

they afterwards continuing to grow, form a prodigious strong hedge; but yet the want of ditches make them very easy to

parlour about 20 feet by 20; out of that into a dining-room 45 by 20, handsomely furnished; the chimney-piece elegant, Siena and white marble in compartments, with a tablet basso relievo polished; and all supported by two very handsome fluted pillars of Siena marble. In this room is found that noble picture the *Cornaro* family, by *Titian*, which highly deserves the admiration of every lover of painting; those who have not viewed the capital well preserved pieces of this master in the foreign collections, but have drawn their ideas of him from his works in *England*, will be surprized to find the colouring of this picture what may yet be called fresh. The heads and hands are of the most perfect expression; not the imitation of life, but life itself; nothing can be in a finer taste than these three exquisite portraits: The connoisseurs may discover beauties of a peculiar nature in this piece; but the unlearned spectator who views with no prejudices but those in favour of nature, will be struck greatly at the sight of such venerable heads that carry in their air and every trait, the marks of such genuine expression,

Next comes a drawing-room 40 by 20: this is also well furnished; the chimney-piece light and elegant; the mosaic'd cieling in the fresco stile pretty. At one end is a large landscape by *Salvator Rosa*, which is fine; rocks and trees jumbled together in the wildness of that romantic genius, which seemed formed by nature to

pafs; when new done, as eafy as a file. They cut little trenches about 18 inches wide and 12 deep, and call them ditches;

catch her fublimeft hints; with a little group of figures dropped from a whirlwind.—Oppofite, *Ixion* by *Lancetti*, an horrible fubject, and handled in a dark, but not an inexpressive manner. Befides these pieces, I would recommend you to obferve a fmall landscape of a fream with a bridge over it cut out of the rock; it is a pleasing, natural, glowing piece. The two larger pictures, companions, one on each fide the chimney, of female figures, want that foft, voluptuousness of the naked, which ought ever to be found in pieces of this fort; that on the right fide of the chimney is by much the moft pleasing, the attitude of the woman is eafy and expreffively painted.—Over the landscape by *Salvator*, is a very pleasing picture of *Venus* lying along on a couch, which in foftness, colouring, and an enticing expreffion of the *embonpoint*, is well worth attention; it reminds one of the famous *Venus* by *Titian*; like his, her face is by no means answerable to her body; the pofture is in every refpect the fame except the poftion of the left hand; which *Titian* has thrown *negligement sur ce*, fays M. Cochin, *que la modestie doit cacher*, but here it falls on the thigh.

From this drawing-room we enter a fmall breakfast-room of about 20 by 20, hung with tapestry; and out of that into the great ball-room, one of the moft elegant in *London*; it is 103 feet long, 27 broad, and 32 high, richly ornamented with gilding, &c. The cieling (which is

but in many of their flat fields their corn in winter is half spoiled for want of good ones to drain the water off. Their

is coved) is very beautifully adorned with medallions, copies of antiques, particularly a Fame, a Flora, a Victory, and a Diana. On one side the room are two chimney-pieces, the cornices of which are basso-relievo's of white marble, and supported by figures of Phrygian captives, copies from others in the capitol; but they are rather too bulky for this use. The other side of the room contains a double range of windows, which are contrived in a very peculiar manner; for notwithstanding the size of the room, the lower ones are of common dimensions and height, which is a circumstance extremely agreeable; the upper range is quite concealed behind the cornice, insomuch that you must be close to the opposite side of the room to discover the immediate track of their light: by means of this contrivance, the room is equally lighted from the floor to the cieling, and the pictures are viewed without the least glare. In the piers between the windows of the lower range are very elegant glasses, and several slabs of agate, and the finest and rarest marbles. The sofas and chairs are of crimson damask, (window-curtains of the same) with gilt arms and legs. There are four glass lustres.

But the principal ornaments of this beautiful room are the paintings; in respect of which I cannot but greatly admire the taste of the noble owner, who, rather than furnish it with such originals as are to be procured at present, ordered

ploughs are much worse than their hedges; so exceedingly large and heavy, that the mere draft of the weight is sufficient for

copies of some capital ones of the greatest painters, by the first artists of this age. The success his Grace met with in the execution, was equal to the propriety of the idea; for here are five paintings which may really be called admirable. It by no means becomes me to talk of a distinction between copies and originals: I speak of paintings merely as objects formed to please the spectator; if the view of one gives me pleasure, I freely bestow the slight tribute of my praise, without a single enquiry of *who painted it*. — In the center is the *School of Athens*, after *Raphael*, by *Raphael Mengs*, which, in defiance of this immortal name, I shall pronounce a *learned*, but by no means a *pleasing* picture. The grouping, in respect of picturesque composition, is excellent, but the piece is very rightly called a *School*; for it consists of many groups with scarce any unity. The figures are in most respects fine, but are little better, from the distinctness of their employments from each other, than so many portraits; the draperies are in general in a heavy, inelegant stile; but the airs of the heads, and the variety of the composition are excellent. You will pardon my speaking of a copy as if it was an original.

On one side of this is the feast, and on the other the council of the Gods, both by *Raphael*, and copied by *Pompeio Battoni*. In the first you will admire the bold strength, of what may be called

two horses; a share commonly weighs 60 or 70 *lb.* From hence results the practice of never stirring with less than four

called *muscular* expression, for the artist seems in this piece to have consulted little besides displaying his anatomical learning; the drawing, it is true, is fine; but the drawing of a Satyr may be as fine as that of a *Venus*! There is throughout this picture a great want of grace; every limb is thick, unwieldy, and heavy, even the female figure is that of a *Rubens*; nor can I conceive that there is any merit in the grouping of the figures.

The feast of the Gods is infinitely finer, (excuse my reminding you, that when I say an object *is* so, I mean no more than I *think* it so) for here are a great number of figures admirably grouped, and some of them extremely graceful; with a general variety in the composition, which must be striking to every one. The woman in the center, whose back parts are alone seen, is admirably drawn, and the turn and inflection of the limbs expressed in the happiest manner; also the three secondary female figures in the corner of the right side, are graceful and very pleasing; the airs of the heads, in general, and the stile of the whole composition is fine. Let me further remark, that in neither this nor the preceding, are many marks of that brilliancy, and pleasing diffusion of lights and shades which result from the refined practice of the clear obscure.

At the upper end of the room is the triumph of *Bacchus*, after *Annibal Carrach*, by *Costanzi*;
a picture

horses, on a light loose gravel, after it has received three or four earths for turnips; the fifth, nay the tenth would not be given

a picture which, however correct the drawing may be, by no means pleases: the subject could be chose by none but an artist who wanted to display the distortions of the human body; thus we see in the corner on the right side, a woman a very *Bright* in flesh, with drapery so well drawn, as to display the shape of the limbs correctly through it; who can view them and not wish for those of a beauty, instead of an oyster-woman? Another somewhat *better made*, holds up her hands and arms in all the fury of intoxication. Surely this painter must have a strange taste, thus to represent the human form! But a greater fault is the unmeaning silly insipidity of *Bacchus*, who surely ought to have had marks of a peculiar and animating spirit upon such an occasion; instead of which he sits in his car with as much calmness, as quiet, sober, and mild a countenance, as if he had been in a council of the gods, instead of a drunken frolick. These circumstances, more than balance the excellencies of drawing, colouring, &c. which are found in this piece.

But the *Aurora* after *Guido* by *Masuccio*, makes ample amends for all the rest. Sure never was grace, in all the divinity of its most pleasing attitudes, more happily caught than in this sweet idea, which is executed with as much elegance as it was conceived with spirit. The whole range of painting cannot exhibit a more pleasing group; each figure is shewn to the best advantage;

without four strong horses and two stout men, one to hold and another to drive; and never do above an acre. Much stronger

vantage; and each most peculiarly elegant: but the principal of the graces is GRACE itself; the arms are extended in so beautiful a manner, the whole body is turned with so much ease, that a superior is scarcely to be imagined. The colouring, the general diffusion of the clear obscure, the wonderful elegance of the whole is unparalleled. One remark, however, I must be allowed, which is, that *Apollo* (the principal figure) is by no means equal to any of the Graces; his attitude is not unpleasing, but it is tame, inexpressive, and infinitely inferior in grace to the figure above mentioned.

I do not apprehend there is a house in *England* of its size, better worth the view of the curious in architecture, and the fitting up and furnishing great houses; than Lord *Spencer's* in *St. James's Place*. Nothing can be more pleasing than the park front, which is ornamented to an high degree, and yet not with profusion; I know not a more beautiful piece of architecture. Nor is the fitting up and furniture of the rooms, inferior to the beauties of the outside. We were first shewn into Lord *Spencer's* library, which is 30 feet by 25; the ornaments handsome. The chimney-piece very light, of polished white marble. On one side of the room hangs a capital picture of the nature of witchcraft; the expression and finishing is very great; and

lands than any in this neighbourhood are, in *Suffolk* and *Essex*, broke up the first time with a pair of horses and one man, who

and the extent of the painter's imagination striking, in drawing into one point such a multitude of the emblems of witchcraft, and all designed with a fine wildness of fancy. It is somewhat in the stile of *Scarlatti*.

From hence you enter the dining-room 46 by 24; the decorations in the finest taste, and the richest of their kind; the cieling and cornice of white and green, beautiful. The slabs of Siena marble, large and finely veined. The chimney-piece, a basso relievo, of white marble well polished. On one side of it is a landscape, the killing of a dragon; the general brilliancy of which is fine; and the trees well expressed. On the other side is another yet more pleasing, the trees of which are likewise striking: the figures are a centaur carrying off a naked woman: her back appears, which is painted with a most delicate softness; she has a slight drapery which is pleasingly designed, though perhaps not perfectly natural.

Next we entered the drawing-room, which is 24 by 21, clear of a bow-window, parted from the room only by two pillars of most exquisite workmanship; they are carved in leaves, the thick foliage of which bends round in a fine arch from one to the other, in a taste that cannot be too much admired; on each side, in a semicircular cove in the wall, an urn of white marble with basso relievos. Nothing can be more elegant than the chimney-piece; a border
of

both ploughs and drives ; but then one of these implements weighs as much as five of the ploughs of those counties. The

of Siena marble with a festoon of flowers upon it in white ; the ceiling, cornice, and ornaments of green and white and gold, and in a delicate stile. Over the chimney, a picture of two usurers ; with great expression.

Returning, we next viewed the Attick story ; the stair-case is in a very just taste, wide and lofty ; the cieling and ornaments green and white.

From the landing-place you enter first the music-room 25 by 23, the chimney-piece extremely light ; on the left a small dressing-room very neat ; the cornice of the chimney-piece white marble, supported by pillars of Siena. This opens into the bed-chamber, 25 by 20. The beds and tables very finely carved and inlaid, the former of crimson damask, with coved tops, and elegant. Returning to the music-room, you enter the dressing-room 25 by 23, which is fitted up with great taste ; scarce any thing can be more beautiful than the mosaic ceiling, the cornices and all the ornaments : the chimney-piece is finely designed and admirably executed ; it is of white marble wrought with the utmost taste, and beautifully polished ; over the cornice are festoons of the lightest carving, and two eagles, with a very fine basso relievo of carving in the center : the pictures are disposed with great elegance, and hung up by ribbons of gilt carving in a pretty taste ; among them are the following pieces :

Two old men's heads in the stile of *Rembrandt* ; fine.

loss, from this mistaken practice, must be amazingly great, since the difference is just half; for the wear of these immense

Ten pieces, companions, exceedingly beautiful; the colouring, attitudes, and drapery very striking; among them *Andromede*, Rape of *Europa*, *Venus*, *Neptune*.

A battle by *Borgognone*, very fine.

Madona, dark, but good.

Nativity, fine.

A *Christ*, ditto.

Holy family, pleasing, but the drapery not excellent.

Landscape, by *Claud Lorraine*, fine.

Out of this room you enter the saloon 45 by 30; than which I never beheld one fitted up and furnished in a more pleasing taste; the cieling, which is coved, is in mosaic'd compartments, green and white and gold; gilt medallions are let into it. The door-cases exceedingly elegant, their cornices supported by pillars, finely carved, and gilt with the same mixture of green as in the cieling. The chimney-piece large, but very light; relievos of white marble. Between the windows are two slabs very large, of the finest Siena marble, the frames carved in the most exquisite taste and richly gilt. The pier-glasses of a large size, single plates, and the frames of the lightest workmanship. The carving and gilding of the sofa frames the same. In the center of the room hangs a fine glass lustre. On each side the chimney is an historical landscape, one of them *Alexander*

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ploughs cannot be less than double that of the little ones, so that a change would at once double the quantity of land ploughed,

and *Diogenes*; the expression good, but the colouring of both has something of the Mannerist.

The next room is called the painted one; 24 by 22: on one side is a bow-window ornamented with carved and gilt pillars, beautifully executed; the walls and cieling are painted in compartments by Mr. *Steuart*, in the most pleasing taste; even the very scrolls and festoons of the slightest sort, which are run between the square and circular compartments, are executed with the minutest elegance: the ground of the whole is green; and the general effect more pleasing than is easily conceived. Nothing can be lighter or more beautiful than the chimney-piece; the frieze contains a most agreeable painting representing a clandestine marriage, which, without variety or glare of colours, has all the harmony of their utmost power: nothing can be more pleasing than the drapery, which is designed with the justest taste. The soft expression of the naked, and the beauty of the heads are great. I should observe, that two of the small compartments of the wall are landscapes let into it with no other than the painted frame of the divisions: one represents a water-fall, and the other a bridge over a stream, both fine. The frames of the tables, sofas, stands, &c. are all carved and gilt in the same taste as the other ornaments of the room, rich but elegant. Remember to observe the peacock's feathers over one of the glasses, the turtles on a wreath of flowers

and at the same expence. Suppose a farmer has 200 acres of arable land, and that he gives them, upon an average, 3 earths

flowers, and the magpies on bunches of grapes : they are beautiful, and the deception of the first extraordinary ; the bold relief of such slight strokes does honour to the pencil of the artist.

It would have been endless in each room to have mentioned *every* circumstance ; but let me, in general, remark, that all I have attempted to describe are much superior to the idea you will have from my description ; and all I have omitted to mention, in richness, elegance, and taste, superior to any house I have seen. The hangings, carpets, glasses, sofas, chairs, tables, slabs, every thing are not only beautiful, but contain a vast variety. The carving and gilding is unrivalled ; the taste in which every article throughout the whole house is executed, is just and elegant.

Among Mr. *Jennen's* pictures *, some I remarked that were excellent ; among others were the following in the common parlour.

Swan. Landscape. The general brilliancy and fine expression of the light, the position and attitudes of the figures, admirable.

Rape of Europa. In the *Dutch* stile of minute expression. The figures are very numerous, and the piece good.

Landscape, with sheep, and a little steeple, very

* *Ormond-Street, Bloomsbury.*

a year; this is ploughing 600 acres once; now, if we call an earth 5 s. which (and 5 s. 6 d.) is the price in *Hertfordshire*, these

beautiful; the figures fine, light, and airy, and the colouring good.

Landscape, with a large ruin, most exquisite. The trees on the right side with light through them, fine; the goats and sheep beautiful, and the colouring and general brilliancy admirable.

In the dining-room:

The Apostles *St. Peter* and *St. John*: the colours dark, but the airs of the heads good.

Angel appearing to the shepherds: Wonderfully beautiful, and of a most pleasing brilliancy; the cows, particularly the red one standing on the right, and that laid on the left, inimitable.

Holy Family, a small picture on copper. The colours, expression, harmony, clear obscure, softness and delicacy, all fine; the attitude of the female on the left that is leaning on her hand, the turn of her arm and the falling of the other hand admirably beautiful; but the twist in her body by the binding of her vest, somewhat unnatural. The virgin's face truly agreeable.

Holy Family; and *Jesus* and the *Samaritan* woman companions; the first of a good expression and colouring.

Hayman. The taking of *Christ*; the expression better than usual with him: colouring very bad.

200 acres costs him 150 l. whereas, by dividing his team, he might either save half that sum, or give his land double the num-

Up stairs, in the anti-room:

Nebuchadnezzar, vast expression.

Hayman. *Peter* denying *Christ*. The expression in *Christ*, and in *Peter*, is good; all the rest indifferent.

Hayman. The Prodigal Son. Old man pretty good; the son nothing.

In the drawing-room:

The school of Carrach.. Dead *Christ*, &c. fine expression.

A large landscape, representing a waterfall, admirably fine; the foam of the water is inimitable. The effects of the clear obscure, great; the light seen through the branches of the tree in a beautiful manner; in a word, the whole piece capital.

In the green bed-chamber:

Virgin and Child. There is in this piece a surprising delicacy. The calm expression, the attitudes, the boy's pointing up his finger, the colours, and the softness of the flesh, all very fine.

Vandyke. A crucifix. The expression of the countenance and that of the muscles, &c. very great.

The Virgin, our Saviour and *John*, on copper. The turn of her head, the brilliancy of the colours, and the attitude of the boys, fine; the drapery heavy.

ber of stirrings; besides enjoying the capital advantage of being twice as speedy in critical feed-times; a point of infinite im-

In the green bed chamber, two pair of stairs forwards:

Virgin and Child; very graceful, and the old man's head fine.

A Water-fall; colours good, but no expression of the water's foam.

Two battles. The colours laid on quite in blotches.

In the Vestible:

A Cobler. The expression of the countenance and colours very fine.

Luca Jordano. Dead game, fine; the figure nothing.

In the collection of Mr. *Barnard* (*Berkeley square*) I particularly remarked the following pieces:

Luca Giordano. The conversion of *St. Paul*. A disagreeable picture.

Cantarini. A holy family, with a little *St. John*, excellent.

Cuyp. A landscape with cattle and figures. The colouring and expression excellent. The light through the trees beautiful.

Bassan. Christ bearing the Cross; dark and not well coloured.

Claud Loraine. Light through the architecture fine, otherwise not a pleasing picture.

Elshiemer. Christ and the two disciples at *Emaus*. The light good, and varied well:—
Dutch with a vengeance.

portance. I should remark, that they do not plough either deeper or more true than in other countries; they sometimes carry a

Tintoretto. Last supper; expressive, but appears to be ill coloured.

Han. Carrach. Virgin and child.

Guido. Magdalen, strangely disagreeable.

Phil. Laura. The stoning St. Stephen, fine drapery and colours.

Castelli. Pharoah and his host drowned in the Red Sea, disagreeable except the expressive attitude of Moses.

Ghisolfi. Ruins, fine.

Le Moine. Susannah and the elders. The colours dark: she is neither agreeable nor enticing.

Zuccarelli. Landscape, brilliant and pleasing.

Rubens. Wise men's offerings, a sketch. Fine.

John Steen. A fish-market, surprisingly minute and lively expression: the countenances, the colours, the height of finishing beyond all praise in this stile of painting: observe the woman's cap, the boy's hair, the man's countenance and attitude, leaning on a door in the back ground.

Seb. Retci. Miraculous cross of St. Anthony of Padua. Strange group.

David Teniers. A man smoaking. Natural expression.

Bassan. A nativity. Very coarse, like most of his pieces which I have seen. Vile draperies.

Nic. Poussin. A silence. Dark and disagreeable: no colours, nor any beautiful expression.

much broader furrow, but that is a most pernicious practice, and abhorred by all good husbandmen ; nor is it of any conse-

Lubin Baugin. Virgin supporting a dead Christ. Fine.

Gas. Poussin. Two landscapes, one with buildings on a hill, very fine.

Another. Exquisite. The trees uncommonly beautiful.

Salvator Rosa. A Landscape with rocks, wild as the winds, but fine.

Bartolomeo. A landscape. The water and rocks very fine.

Two pieces of women and girls in various attitudes, landscapes. The draperies pleasing, displaying the naked through them; the colouring also pleasing.

Rape of the *Sabines*. Great expression.

Devonshire house is not only a considerable structure, but contains a noble collection of pictures.

The hall is 30 by 34.

The first drawing-room 32 by 24.

Bassan. *Moses* and the burning bush. Strange thought, the fire spirts in his face.

Claude Loraine. Landscape, prodigiously fine; colouring, keeping, and trees, great.

Vandyke. *Moses* in the bull-rushes. Fine.

P. Veronese. Wise mens' offerings. Disagreeable.

Tintoret. Archbishop of *Spoletto*. An exceeding good portrait; the head very fine.

Luca Giordano. *Cleopatra*. Fine.

Vandyke. *Arthur Godwin*; the colouring not equal to the painter.

quence to the farmer, as his teams do but an acre a day.

These particulars are not very interest-

Carlo Cignani. *Joseph* and his mistress; fine drawing; but the female not beautiful.

Le Seur. *Solomon* and the *Queen of Sheba*. Colouring miserable; the drapery the same; the airs of the head the best part of the picture.

Titian. Landscape. *St. John* in the wilderness. Nothing pleasing.

Albano. *Sine Baccho et Cerere friget Venus.* By no means answers the title.

Salvator Rosa. *Jacob's Ladder.* Very fine.

In the second drawing room, (30 by 24.)

Rembrandt. An old man. Capitally fine, prodigious expression, face, hands, and turban, beyond all description.

Luca Jordano. *Venus* and *Cupid.* For this painter, this is delicate; the plaits of the flesh fine.

Tintoret. A portrait. Good.

Vandyke. Portrait of an abbess. Very fine.

Titian. A Portrait. The countenance and hair expressive.

Gas. Poussin. Two Landscapes. Good.

Dominichino. *Adam* and *Eve.* Admirable attitudes.

Guido. *Andromache.* The attitude fine, but the soft delicacy of the flesh gone off.

Amoroso. Beggar's boy with a bird's nest; and a girl feeding chickens; two pieces, and both very pretty.

Tintoret. *Samson* and *Dalilah.* Fine,

ing, but you must accept them instead of those beyond my power to gain. I shall soon set out from *London* for the West of

Carlo Marrat. Holy family. Attitude very good, but has no brightness.

Gas. Pouffin. Landscape. Fine.

Titian. Portrait of *Philip II.* of *Spain*. This picture is in much better preservation than those we commonly see of this master; it is finely coloured, and admirably expressive.

Tintoret. Portrait. Fine.

Rubens. Holy family. Elegant and expressive.

Borgognone. Two battle pieces. Fine.

P. da Cortona. Landscape. Great variety.

Dominichino. *St. Jerome*. Vast expression.

In the library, 40 by 20, are several fine bronzes over the chimney.

In the little dressing room, 20 square :

Camillo Procacini. Transfiguration. Middling. Our Saviour is in a winding-sheet; most inelegant drapery,

Baroque. Holy family. The most insipid countenance in the world.

Titian. *St. Jerome*. Very fine.

Dominichino. Christ bearing the cross. Fine.

Correggio. *Magdalen*. By no means answers to the fame of the painter.

Solimini. *Alexander* and *Campaspe*. Drapery and colouring fine.

Guido. Old woman's head. Excellent.

Albert Durer. Marriage of a virgin. Most capital expression; the attitude of the virgin wonderful easy, and the countenance fine.

England, which journey will doubtless afford much matter in my path of observation. In the mean time I remain sincerely,

Your's, &c.

LABOUR.

Winter, 1 s. 2 d. and beer.

Hay, 1 s. 6 d. and ditto.

Harvest, 2 s. 6 d. and ditto.

Tintoret. *Mars and Venus.* Fine.

Nic. Berettoni. Holy Family. The hackneyed attitude without the least variety.

A Water-fall. Very fine.

Polenburgh. Flight into *Egypt.* Figures, colours, expression, and finishing, exquisite.

An. Carrach. Portrait. Very fine.

Pbi. Lauri. Saint and Angel. Fine.

Rottenhammer. Murder of the innocents. Vast variety, much expression, and good colours.

Teniers. Two people counting money. Fine.

Raphael. A head. Ditto.

In the great dining-room, of 36 by 24, are

Luca Giordana. *Sophonisba.* Disagreeable.

Sir P. Lely. Duke of *Albemarle.* The hands very well executed.

Guercino. *Susanna* and the Elders. Finely designed. Great expression.

In the dressing-room, 36 by 24 are,

Salvator Rosa. *Achilles* and the Centaur. Centaur's head great.

Guido. Death of *St. Peter.* Great expression, and finely coloured; but whence comes the light?

L E T T E R IV.

I TOOK the *Uxbridge* road to *Oxford-shire*; very flat and unpleasant it is; but the richness of the soil and culture makes amends for the dulness of the country. About *Acton* I observed many crops of pease and beans drilled, and kept perfectly clean from weeds. This culture, with respect to pease, I remarked particularly, as several of the crops were young, and yet *supported themselves*, which I have frequently found much wanting, in the cleaning drilled pease; they are generally so very weak, that they fall into the intervals, so as to interrupt the hoeing, and let weeds rise easily through them; but some of those young crops stood so upright, that I remarked it with surprize; and on examining them, found a little ridge of moulds drawn up in an exceeding neat manner to their roots, to support them. I was particularly attentive to this pease of husbandry, as I had never seen it perfectly practised before.

In the neighbourhood of *Hays*, are found two kinds of soil; one very heavy, and the other light turnip-land. The former they use chiefly for wheat and beans, but sow them in a course peculiar to themselves; they

they fallow for wheat, and after that sow beans; whereas in land strong enough to yield those crops, beans should be the fallow, by means of thorough good cleaning, and wheat succeed them; which is the practice in the richest parts of *Essex*. Very few oats or barley are sown in these heavy tracts. In the lighter ones their method is, 1. Turnips. 2. Barley. 3. Clover. 4. Wheat; than which none can be better.

LABOUR.

In winter, 1 s. 6 d. and small beer.

In hay-time, 2 s. and ditto.

In harvest, 2 s. 6 d. and ditto, but chiefly by the piece.

Hoeing beans, 3 s. to 5 s. an acre. This is the cheapest work they do.

Reaping wheat, 8 s.

Mowing grass, 2 s. 6 d.

PROVISIONS.

Butter, - - 8 d. per lb.

Beef, - - 5

Mutton, - - 5

Veal, - - 5

Bread, - - 2

They plough here in general with four horses, and all in a line; a man to hold the plough, and a very stout lad to drive, and do one acre a-day. The breed of hogs, the true *Chinese*, large, broad, and short legged, from *London* quite to *Wickham*.

There

There is nothing more remarkable than the great variations in rustic prices, without any apparent cause. I have just given you those about *Hays*, whereas they totally change in five or six miles; for on examining them again, I found them as follows; reaping wheat, 5s. 6d. and 7s. *per acre*; mowing oats, 1s. barley, 1s. 2d. day-labour in winter, 1s. in *June* and *July*, 1s. 2d. in harvest, 1s. 6d. and board, and beer to all: these for 16 or 17 miles from *London* are very low. Thrashing I found was all done by the day; a day's work at which, was reckoned four bushels of wheat; six of barley; and eight of oats. The soil of the country grew poorer as I advanced from *Hays*; rents I found run in general, from 7s. to 10s. 6d. and their middling crops about three quarters of wheat; as much of barley, and about four of oats. Ploughing likewise varied in this short distance considerably; for all the horses I observed at plough were harnessed in couples, four to each.

About *High Wycomb* the farms are in general large, most keep more teams than one: Mr. *Betten* of *Handicrafts* has 1100 acres of arable land. To speak of a large farm here, or in some other countries, is a very different affair: here, five horses are always used to a plough, oftentimes six, with two men, one to hold and the other to

to drive; and an acre of ground they reckon a good day's work: if of fallowing, half or three-fourths of an acre. I do not write these particulars without astonishment: I am so used to observing exceeding strong soils in *Suffolk* ploughed up at the rate of an acre a-day by one man and a pair of horses, that I cannot give you these vile remnants of barbarity without a great degree of disgust; had I offered to a *Buckinghamshire* farmer to send him a servant that would plough as in *Suffolk*, he would have laughed in my face at my absurdity.

The course of husbandry in this neighbourhood is the best: turnips, barley, clover, wheat; often barley after wheat: this again is another proof, that the soil does not require more than a pair of horses to plough; for turnips are never sown but in soils that are somewhat *light*. One remark, however, I must make, and that is, the fields are very hilly. Day-labour here is out of proportion; 1 s. in winter, and 2 s. in *July*: — two guineas and board *per* month in harvest*.

Beech

* The noble park of his Grace the Duke of *Portland*, at *Bulstrode*, is peculiarly fortunate in situation, by means of contrast. The country adjoining is very flat, not well cultivated, and has few of those elegant varieties which are pleasing

Beech woods are remarkably prevalent in the tract of country between *Wycomb* and *Tetford*; the whole country is very hilly, and the soil little else but chalk. The first thing which struck me on leaving *Wycomb* town, was the noble seat of Lord *le Despenser*: the house is by no means equal to the beauty of the ornamented environs. The situation is very agreeable, on an eminence rising from a most elegant river, which meanders through the park and gardens, with the happiest effect; before the house it forms an elbow, which looks like a large lake, and on which floats a ship, completely rigged, with a long-boat, and another lying along-side; her masts rising above the adjoining trees, in a manner which adds greatly to the landscape. On the summit of a hill, which over-looks the whole country, his lordship has built a new church, pretty much in the old taste; and very near it a mausoleum;—a sexangled
open

pleasing to a traveller; but this happy spot, which his Grace has chosen for his park, contains not a level acre; it is composed of perpetual swells and slopes, set off by scattered plantations, disposed in the justest taste. The extent is very great, and the whole appears to be one of the finest parks I remember to have seen.

open wall of flints, with stone ornaments, and a row of *Tuscan* pillars. On the inside runs a garter of stone around it, and two of the six divisions are occupied with dedications to the late earl of *Westmoreland*, and lord *Melcomb*. There is not much to commend in the taste of this building; but it is either unfinished, or the idea very incomplete; and the situation is such, as to appear from many points of view to be one building with the church, which has by no means a good effect. One circumstance, however, must not be forgot, and that is, was *St. Paul* to preach in this church, he must furnish the neighbours with more than mortal legs to become his auditor: for it was with the utmost difficulty I could gain the top, and you know pretty well that I am not wanting in activity; for an unwieldy size was never my misfortune. This church appears therefore to me, much in the same stile as *Beatrice* considers *Don Pedro* for a husband; fit only for festivals, with another for common use — too *elevated* for every day.

From *Wycomb* up to *Stoke*, is through perpetual woods of beech; the soil all chalk; the crops of corn in general clean and good, but the turnpike-road declined greatly, insomuch, that I could scarcely believe myself on one; for near *Tetford*, they mend entirely of stone, dug out of

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the hills, which are like quarries, and are in large flakes; so that in those places which are just mended, the horse hobbles over them, as if afraid of breaking his legs.

About *Stoke* the land lets for 10 s. an acre. Their course of husbandry, with accidental exceptions, is, 1. Fallow. 2. Wheat. 3. Spring-corn. 4. Clover, two years. 5. Fallow. Good middling crops are, of wheat, three quarters *per* acre; of barley 5; of oats 4. Prices of work I think remarkably low.

LABOUR.

All the year, except at harvest, 1 s.

In wheat-harvest, 2 s. and beer.

—Spring-corn, ditto, 1 s. 6 d. and beer.

Reaping wheat *per* acre, 5 s.

Mowing barley, 1 s.

—Oats, 10 d.

—Grass, 1 s. 4 d. and 1 s. 6 d.

PROVISIONS.

Mutton, - - 4½ d. *per* lb.

Beef, - - 4

Veal, - - 4½

Butter, - - 7

Six horses to a plough, and do an acre a-day; sometimes not so much.—From the top of *Stoken-hill* you have one of the most extensive prospects I have seen; but not so rich and beautifully diversified as that

I men-

I mentioned near *Billericay*. In the vale the soil is all chalk, and does not carry above 7 s. an acre.

At *Turville*, near *Stoke*, there are large tracts of hilly country, the culture of which deserves some attention. The soil is a stratum of large rough flint stones on a chalk rock, excessively dry, as may be judged of by the scarcity of water; farms of 3 or 400 acres have not above one pond, and that perhaps so artificial as to be dry in the height of summer, and all cattle watered from a well 2 or 300 feet deep. The hills are very steep, so that a stranger to the country can hardly believe it possible they should be able to plough or cart on them, which yet they are able to do from custom. Farms are in general large, from 200 to 600 acres, usually about 250 or 300. The rents run at 9 s. an acre. Their courses of crops are,

1. Fallow
2. Wheat
3. Barley
4. Oats

1. Fallow
2. Wheat
3. Oats or pease.

-
1. Turneps
 2. Barley
 3. Clover
 4. Wheat
 5. Barley

1. Turnips
2. Barley
3. Oats
4. Clover
5. Wheat. 6. Barley.

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All

All which are very bad. It is erroneous husbandry, on the best soils, to sow two or three crops of white corn running; but it is yet more improper to venture such management on these poor hills, which certainly are but a very weak soil; the stones are spread on them in a quantity that is truly astonishing. They have no natural grass, consequently are forced to sow a good deal of clover; it therefore ought to behove them to favour it as much as possible, their live stock depending on it; sowing it with a second crop of corn is a vile conduct; it ought universally to be thrown in with the first, after turnips or fallow.

For wheat after clover they plough but once; a fallow three or four times; sow two or two bushels and an half of seed an acre, and reckon the average product at $2\frac{1}{2}$ quarters *per* acre. For barley they plough once, sometimes twice; sow four bushels an acre, and gain in return four quarters; this is a good produce for such land, and certainly owing to their laying their dung on their turnip-land, and always feeding the whole crop with sheep on the land. They stir but once for oats, sow four bushels an acre, and reckon the average produce at 4 to $4\frac{1}{2}$ qrs. They do not sow many beans or tares, sometimes a few of the

the latter for foiling their horses. A few pease, which yield 3 qrs. an acre.

All their lands do for turnips, for which they plough three or four times, hand-hoe them once; good crops sell well here, from 40s. to 3*l.* to be fed by sheep; but the average of all about two guineas.

Sainfoine is coming in, but it is not yet near so general as it ought; few men, even upon large farms, having more than one or two small fields of it. They sow it with barley after turnips, 4 bushels an acre; it lasts from 10 to 16 years, and yields, after the first crop, about a load and half an acre on an average, that is from 1 load to 2. This hay is worth from 40s. to 3*l.* a load; at 50s. it comes to 3*l.* 15s. *per* acre besides the after-grass; this is infinitely more profitable than any other product the country produces, and yet the farmers are so amazingly blind to their interest, that they confine themselves to very small quantities of it. The steepness of the hills occasions their ploughing not only to be poorly performed, but with immense labour to the horses. Keeping such land in tillage, that admits of being so profitably laid to grass, is certainly a conduct big with absurdity.

In manuring they have not great merit, depending principally on very ill-managed farm-yard composts: their flocks of sheep

are too small they think to make folding answer. Some of the best farmers buy top-dressings for their clovers, and perhaps for their wheat, of coal-ashes, peat-ashes, rags, &c. but the quantity is not considerable.

They plash their hedges very well, so as to make as good fences as they can be without ditches, of which there are none; the land is all so dry that they are not at all wanted for drains.

Their system of live stock is not of much consequence, as may be supposed on farms nineteen-twentieths of which are arable; every farmer keeps a few cows, which some milk, but more suckle; they reckon a cow to pay 5 *l.* a year either way.

Very few of them have larger flocks than from one to two hundred; and they reckon on an average that they pay 10 *s.* a head profit.

In their tillage, they reckon four or five horses necessary for 100 acres of land; never use less than four in a plough, and do from three rood to an acre a day, the depth about four inches, the price *per* acre, 7 *s.* 6 *d.* Upon this article of tillage I have to remark, that they plough up and down the steepest hills, which is the most preposterous conduct in the world; it would be easing the horses greatly to cross the land, and at the same time prevent the finer particles of the soil on the tops and sides of the

the hills being washed into the vales, which is here the case in every field; this is a point which wants remedying not a little: two horses would plough across the banks with much greater ease than four can do up and down. Another circumstance relative to their ploughing, I recommend to the consideration of those who have been attentive to the mechanism of a plough; their shares are so very narrow, that all the work of the plough is done by the mould-board; the ground is not cut at bottom, but only driven along and thrown over by the board; there is not a greater evil in ploughing than this, which is indeed too common over all the kingdom; the reason for it here is the excessive stoneyness of the soil; a broad share cannot be kept in the ground without difficulty; but a very narrow one, ending in a chizel-point, passes better among the stones: the consequence of this evil is, their ploughing their land and driving over all the surface earth without cutting the weeds. I have seen on turnip-land, after much tillage, and before the plants were up, thistles make an appearance as if the land had not been stirred above once or twice: this is an evil of so great importance, that nothing should be neglected in order to remedy it: if the ploughs already contrived will not work here, new ones should be invented.

In hiring and stocking farms, they reckon 700 *l.* or 800 *l.* necessary for one of 300 acres. The particulars of a farm here, are,

300 acres all arable	3 cows
130 <i>l.</i> rent	2 men
200 sheep	1 boy
9 horses	3 labourers

The landlord of this farm, captain *Innes*, of *Henley upon Thames*, to whom I am obliged for the preceding particulars, is going to take it into his own hands, with a view to improve the husbandry of this neighbourhood. He is determined to get all the fences of the farm into good order, to make a new disposition of some of the fields, to attend carefully to raising large quantities of manure, to pursue a new system of tillage, having purchased other ploughs, and already worked them with only a pair of horses; he designs to follow a course of crops that will banish the unprofitable custom of sowing land two or three years successively with white corn; but above all, he is very intent on cultivating sainfoin in large quantities, for which he finds the soil admirably adapted from the experience of ten acres now (1771) in the second year. These objects are all of the highest importance, and cannot fail proving uncommonly advantageous, especially the sowing much sainfoine, which seems to be the product for which the country is peculiarly

peculiarly adapted. I have no doubt but the Captain will in a few years give a new face to cultivation in this neighbourhood.

The country from *Tetsford* to *Oxford* is extremely disagreeable, barren, wild, and almost uninhabited. The road, called by a vile prostitution of language a *turnpike*, but christened, I apprehend, by people who know not what a road is : it is all of chalk-stone, of which loose ones are every where rolling about to lame horses. It is full of holes, and the ruts very deep ; and withal, so narrow, that I with great difficulty got my chair out of the way of the *Witney* waggons, and various machines which are perpetually passing. The tolls are very dear, and, considering the badness of the roads, unreasonable. Husbandry is by no means perfect here : in the neighbourhood of *Witney* there is a great variety of soils ; some I take to be very rich, from their rent, which is 50*s.* and 3*l.* an acre, while under tillage, (which is but for a year or two) and 20*s.* and 25*s.* when laid down again. But in the same neighbourhood, much inclosed lands lett for 20*s.* and the common fields from 7*s.* to 12*s.* Their course of husbandry is different from most ; 1. Wheat. 2. Beans. 3. Barley. 4. Fallow. 5. Barley. 6. Clover, with variations. They set their beans with a dibble,

a dibble, and keep them clean by hoeing. Foot ploughs are here used.

LABOUR.

All winter, and to hay-time, 1 s.

In hay-time, 1 s. 6 d.

In harvest, 2 s.

No beer at any time.

Hoeing beans, 2 s. an acre : this is lower than ever I heard of.

Dibbling them, 1 s. 8 d. a bushel.

PROVISIONS.

Mutton, - - 4 d. and 4½ d. *per lb.*

Beef, - - 4

Butter, - - 7

It is remarkable, that very few women and children are employed in this country in manufactures, most of them work with the farmers ; but some few spin. They reckon 3 qrs. of wheat a very good crop, and 4 of barley. The hogs are here all fed by the dairies ; never with clover *.

* To be so particular here on the city of Oxford as its contents justly require, would not be consistent with the purport of these letters, for they would fill a volume : the country, not towns, is the principal scene of my observations ; and though I sometimes vary from that plan, yet I must not venture on so strong a deviation as this celebrated city would require. However, do not pass through it, without remarking the
front

Woodstock is famous for a manufacture of polished steel and gloves, but does not employ above twenty or thirty hands in the former, and forty or fifty in the latter. Journey-men in the steel-work earn from 15 s. to two guineas a week; and men and women by making gloves, about 8 s. and 9 s. a week.

Between *Woodstock* and *Witney*, about *Hanborough*, the husbandry I found much

front of *Queen's-College*, and the *Radcliff Library*; which are modern pieces of architecture, and beautiful. In the antique style many colleges present themselves, but they are by no means equal to some antient cathedrals in the same gothic taste.

From *Oxford* we took the road to *Blenheim*. The front is a clutter of parts, so distinct, that a Gothic church has as much unity; and, withal, a heaviness in each part. You enter first the grand hall, which is the largest, and I think without comparison, the finest I have seen in *England*: but in this room, as in most others, there is something in the dimensions which displeases at first sight; 53 by 44, and 60 high: this vast height, besides the disagreeable effect it has in itself, takes off from the appearance of space in the area. The side against the saloon, enlarges itself considerably in the middle: in the center is the saloon door; and on each side some very large and magnificent corinthian pillars, in a good taste and proportion;

the same as the last I mentioned. 1. Wheat. 2. Beans. 3. Barley. 4. Fallow. When beans are not used, then clover is sown among the wheat in spring. They plant all their beans, and hoe them generally twice. They use both foot and wheel-ploughs, all with four horses. Their manure they use entirely for the wheat and barley crops. A remarkable manner of estimating crops here, is by the return in

portion; and over them a gallery, which is all done in a grand stile; and not one stuck to the wall, like an overgrown shelf, as at *Houghton* and *Wilton*; or turned into the range of a bath, as at *Holkham*: It would take a cube of an hundred feet to have a gallery totally around a hall, in a just taste, like this at *Blenheim*; and therefore it is infinitely preferable to add an additional space to one side of the room, for a gallery, and the pillars to support it, especially as they have a very fine effect fronting, as you enter the hall. By means of its being in the nature of a recess, and not projecting into the room, there is no abruptness or deficiency in its not being continued around the whole. Nothing offends in this room but the height.

The saloon is 44 by 33, and 45 high; which is the largest I have seen: proportion is again hurt by height; otherwise this room would, like the hall, be much finer. The door-cases are of marble, and exceedingly magnificent; but a stone floor for the saloon is perhaps improper.

proportion to the seed ; wheat, they reckon five or six bushels for one, and as they sow three, it amounts of course to about 2 qrs. or 2 and $\frac{1}{2}$. Barley, 3 qrs. Beans, 3 and $\frac{1}{2}$.

They have no dairies here, and even feed their hogs in summer with beans ; which is as curious a stroke in husbandry as I have met with since I left home. The soil is generally a clay, with some veins of

proper. The suite of rooms to the left, are as follows : — Drawing-room, 28 square, this is filled with pictures by *Rubens* :

Holy family.

Roman Charity.

Virgin and Child.

Flight into *Egypt*.

Offering of the wise men ; old mens' heads
· exceeding fine.

Lot driven out of *Sodom*.

Our Saviour blessing the children.

Paracelsus ; amazingly fine.

Pope *Gregory*.

The breakfast-room, 24 square : here we find *Silenus*, and *Andromeda*, two pictures, both by *Rubens* ; and fine.

Woman taken in adultery.

Circumcision.

Old man ; all three by *Rembrandt*, - and very fine, especially the two first.

The Duke's dressing-room, 24 square.

The passage-room.

sharp gravel ; lets from 9 s. arable, to 40 s. grafs, an acre.

LABOUR.

Winter and spring, 1 s.

Hay-time, 1 s. 2 d.

Harvest, 1 s. 6 d.

Reaping wheat, *per* acre, 5 s.

Mowing soft corn, 8 d.

———— Beans, 1 s. 9 d.

———— Grafs, 1 s. 4 d.

Besides these apartments, others were occupied by the family, which we could not see ; on the other side of the saloon,

A drawing-room, 35 by 25.

Another, 35 by 25.

Another, 25 square : here is the death of *Seneca*, by *Luca Giordano* ; without any expression of character, or the least trace of imagination.

Edward VI. by *Holbein*.

Destruction of *Troy*, by *Brughil*.

The library, 180 by 43 in the principal part, the middle ; and 30 at each end. This is the noblest room applied to this use I ever saw : at one end is a very fine statue of *Queen Anne*, in white marble, by *Rysbrack* ; the front drapery of which is exceedingly good. The chimney pieces are likewise in a better taste than any in the house. The marble pilasters around it, are not very ornamental, nor proportionally so with

Hoeing beans, 3 s. 6 d. and 4 s. each time.

This, upon the whole, is very reasonable.

PROVISIONS.

Mutton, - - 4½ d. per lb.

Butter, - - 6

Witney is very famous for its woollen manufactory, which consists of what they call kersey-pieces, coarse bear-skins, and blankets. The two first they make for the
North-

with the other parts; they might have been Corinthian pillars.

The chapel is handsome, but has nothing striking in it, except a very magnificent monument of the Duke and Dutchess, and their two Children.

There are no bed-chambers on the first floor. I should observe to you, that those rooms in which I have not mentioned pictures, are hung with the finest *Brussels* tapestries; containing the history of the great Duke's campaigns; and in design and colours are really admirable.

Blenheim, upon the whole, does not fully answer to those who know it to be the monument of a nation's gratitude: a pile raised at the expence of the public, and meant to be great and magnificent, yet every thing that the occasion called for, might, and would have been effected, had not the execution fell to *Vanburgh*; whose buildings are monuments of bad taste.

The park is very extensive, and well planned; the water truly noble.

North-American market; vast quantities being sent up the river *St. Lawrence*, and likewise to *New-York*. Their finest blankets, which rise in price to 3 *l.* a pair, are exported to *Spain* and *Portugal*; but all are sent to *London* first in broad-wheel waggon, of which four or five go every week. The finest wools they work come from *Herefordshire* and *Worcestershire*, and sell from 8 *d.* to 10 *d.* per *lb.* The coarsest from *Lincolnshire*; they call it daglocks; they sell it for 4½ *d.* per *lb.* and are used for making the coarse bear-skins. There are above 500 weavers in this town, who work up 7000 packs of wool annually. Journey-men, in general, on an average, earn from 10 *s.* to 12 *s.* a week, all the year round; but they work from four to eight, and in winter by candle-light: the work is of that nature, that a boy of fourteen earns as much as a man. One of seven or eight years earns by quilling and cornering, 1 *s.* 6 *d.* and 1 *s.* 8 *d.* a week, and girls the same. Old women of 60 and 70 earn 6 *d.* a day in picking and sorting of wool: a good stout woman can earn from 10 *d.* to 1 *s.* a day by spinning; and a girl of fourteen, 4 *d.* or 5 *d.* They weave according to the season; in winter kerseys and bear-skins, ready for shipping in the summer up the *St. Lawrence*; and in summer, blankets for home consumption, and *Spain* and *Portugal*. One
remark-

remarkable circumstance is, that none of the manufacturers ever work for the farmers. The blankets usually purchased at home, are about 23 s. or 24 s. a pair, ten quarters wide and twelve long; and the corners are wrought for a halfpenny a piece.

PROVISIONS.

Mutton	- -	4d. and 4½d.
Beef,	- -	5
Veal,	- -	3½
Bacon	- -	8
Butter	- -	6 and 6½d.

The road from *Witney* to *North Leach* is, I think, the worst turnpike I ever travelled in; so bad, that it is a scandal to the country. They mend and make with nothing but the stone which forms the under stratum all over the country, quite from *Tetsford* the other side of *Oxford*. This stone, which rises in vast flakes, would make an admirable foundation for a surface of gravel; but by using it alone, and in pieces as large as one's head, the road is rendered most execrable.

All the country is open, dull, and very disagreeable, nor does a vigorous culture of the earth make any amends for those unpleasing circumstances; the crops were generally very poor, and mostly full of weeds; a strong proof of bad husbandry; and another yet more so, is their fallows
L
being

being the same. About *Burford* and *Sherborn* their courses of crops are various. Some fallow for wheat. 2. Dibbled pease. 3. Barley: others vary it, 1. Wheat. 2. Beans dibbled, or barley. 3. Pease: this is in the low lands about *Sherborn*; but on the *Gotswold-hills* they take a crop, and lay down with ray-grass and clover. They use all foot ploughs, with one wheel, and four horses in length; plough about one acre a-day. The open fields on the hills lett in general for about 5 s. or 6 s. an acre, the low meadows about 20 s. They reckon three quarters of wheat to be a very good crop, and as much barley and beans. The farms are in general large, indeed absurdly so, considering the manner of managing them, for the farm-houses are all in the towns; so that the farmers are at a prodigious distance from their lands: they are in general 2, 3, 4, and 500 l. a year, at about 5 s. Enclosing by no means flourishes, for from *Tetsford* to *Oxford* enclosures are scarce; and from thence to *North Leach*, few or none. Mr. *Dutton* has planned some at *Sherborn*, but the scheme goes on very slowly. It is amazing that a man of his considerable fortune, can bear to live in the midst of such a vastly extensive property, in its present condition. All this bleak unpleasant country is strong enough for any kind of trees, and might therefore be

be ornamented with fine plantations, which would yield considerable profit in a country wherein firing is so scarce*. And farm-houses, barns, and all kinds of out-houses, might be built on the spot, cheaper, I apprehend, than in any part of *England*; for the stone, which every where lies almost within six inches of the surface, forms the walls and covering (slates) of all the buildings in the country.

LABOUR.

Winter and spring, 8*d.* 9*d.* and 10*d.* a-day.

Summer, 1*s.*

Harvest, 1*s.* 8*d.*

Reaping wheat, 4*s.* and 5*s.* an acre.

Mowing barley and oats, 6*d.* and 9*d.*

Dibbling beans, 5*s.*

Hoeing ditto twice, 5*s.*

Threshing wheat, 2*s.* per quarter.

————Barley, 1*s.*

————Oats, 10*d.*

————Beans, 1*s.*

PROVISIONS.

Butter, 7½*d.* The dearth of this article must be owing to nine-tenths of the country being arable.

Mutton, 4*d.*

Beef, 4*d.*

* Scarcely any wood. Coals brought from *Gloucester* cost at *Sherborn* 25*s.* a tun.

About *North Leach* they sow much sainfoine; they prepare for it by turnips, and sow it with oats, and mow it every year for about ten; getting generally a tun, or a tun and a half of hay from it.

Between *North Leach* and *Frog-mill*, the countries improves continually, until it becomes what may really be called fine. About *Stow*, the seat of Lord *Chedworth*, I observed them for the first time ploughing with oxen, and to my great indignation, eight large ones yoked to a plough, and skimming up the surface about three inches deep; which the ploughman with a very grave face called *stiff work*. It was a sainfoine lay, that had been pared and burnt about a month before, half an inch deep: it was turning up for turnips; the ashes laid but thin, I should not imagine above two bushels to a square rod. The price of paring, burning, and spreading the ashes, varies from 14s. to 20s. an acre. This is very cheap; such an operation would, in the eastern parts of the kingdom, come at least to three or four pounds an acre: such is the force of any practice being the custom of the country!

Very considerable tracts of land have been under the paring and burning husbandry much longer than the memory of the oldest man can recollect; and yet the depth of the soil, five or six inches, is now

as great as ever: it is a common error to suppose that paring and burning wastes the quantity of land; if that was the effect, much of this country would long ago have had no surface at all: but the fact is, that nothing is burnt but the bulbs and roots of the old crop, which would soon rot away if they were not burnt.

About *Shipton*, day-labour used all winter to be 8*d.* 9*d.* and 10*d.* a day; but the last the farmers raised it to 1*s.* for the first time, on account of the dearness of provisions, and gave the men 1*s.* 2*d.* in the spring, 1*s.* 6*d.* in mowing time, and 1*s.* 8*d.* at harvest for five weeks. Oxen are pretty much used; I found they reckoned them something cheaper than horses, but that horses did their work better. In summer they feed them on both common and artificial grasses; and in winter seldom give them any thing besides good straw, on which they work them: they put them to labour at three years old, and continue them at it till five. The ploughs are here very clumsy: the beams ten feet long, and all have wheel-coulters.

From *Frog-mill* to *Crickly-hill*, which leads into *Gloucester* vale, the beauty of landscape is great. Six miles from the former, from the top of an hill, is seen to the right a most prodigious prospect, over

an extensive vale, bounded by *Cheltenham* hills, which seem to tower quite to the clouds; the inclosures appear in a bottom under you, and are very distinct. On the whole, it is inferior only to that amazing one of *Billericay*. All this country is full of picturesque views; the romantic spots of *Crickley-hill* are exceedingly fine.

The husbandry of this tract does not materially differ from the preceding ones; however, I shall present you with the particulars I gained a knowledge of; and as to some repetitions, I know you will excuse them, who are sensible that I had better dwell in tautologies of that nature, than neglect giving you particular information. Their course of crops is, 1. Barley. 2. Clover for two years. 3. Wheat. 4. Pease. They reckon two quarters a middling crop of wheat, and the same of oats; and of barley, three. Rents run from 6s. an acre to 12s. but in general 6s. or 7s. The farms above hill are large; from two to three hundred a year, and some more: but in the vale of *Gloucester* they are much less. What grass they have they mow; very few beasts are grazed, and but few dairies, except in the vale, where they have all that fine breed of hogs, which at *Barnet* market are called the *Shropshires*; with exceeding long carcases, and long flouching ears, which almost

almost trail upon the ground, to make way for their noses. Sainfoine is much sown in all this country, and lasts generally about ten years, some longer; and their method of breaking it up, as well as sheep-pastures, after they have laid about ten years, is by paring and burning; they take off the surface about half an inch thick, and plough in the ashes for turnips, sometimes for wheat. The price of this work is something under twenty shillings an acre. Oxen are much used for all the purposes of husbandry; never less than six in a plough, frequently eight. They are reckoned the most profitable by some farmers, and horses by others; but it is generally agreed, that when a man keeps two teams, it is ever the most profitable to have one of them of oxen.

LABOUR.

In winter, &c. to hay-time, 8 *d.* 9 *d.* and 10 *d.* the stoutest fellows often want work for 9 *d.* and cannot readily get it.

In hay-time, for mowing, 1 *s.* and 1 *s.* 2 *d.*

In harvest, 1 *s.* 8 *d.*

Reaping wheat *per* acre, 4 *s.* and 5 *s.*

Mowing spring corn, 10 *d.* and 1 *s.*

Thrashing wheat, 2 *s.* a quarter.

———— Barley, 1 *s.*

Thrashing Oats, 10 *d.* All this exceedingly cheap.

IMPLEMENTS.

A stout waggon costs from 16*l.* to 20*l.* and a plough ironed complete for half a guinea, which is amazing.

PROVISIONS.

Beef,	-	-	4 <i>d.</i> per <i>lb.</i>
Mutton,	-	-	4½
Butter,	-	-	7
Bread,	rather more than 2 <i>d.</i> per <i>lb.</i>		
	5½ <i>lb.</i> for 1 <i>s.</i>		

There is no manufacture nearer than *Gloucester*; the staple of which city is pins, which employs near 400 hands, of whom a great number are women and children: good hands at pointing and sticking earn from 10*s.* to 12*s.* and 15*s.* a week: children of 9, 10, and 11 years old, earn 2*d.* and 3*d.* a day; but some journeymen do not get more than 7*s.* 8*s.* and 9*s.* a week: the wages in general are good. There are some glass-houses in this city; and a pretty brisk trade carried on by means of the *Severne*, with *Shrewsbury*, &c. and *Bristol*.

PROVISIONS.

Bread	-	-	2 <i>d.</i> per <i>lb.</i>
Butter	-	-	5½
Mutton,	-	-	4
Beef,	-	-	3½ and 4 <i>d.</i>

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Veal, - - 3

Bacon, - - 8

Candles by the single pound, 7d.
if by three's, 6½d.

You must allow me here to put a period
this letter.

Adieu, Sir; believe me,

Yours,

Newnham, Monmouthshire,
July 2, 1767.

Veal

LETTER V.

I WAS infinitely surprized to find the same stoney, hard, and rough roads, miscalled turnpikes, all the way from *Gloucester* to *Newnham*, which is twelve miles: it is all a narrow lane; it is the same stone as the other side of the *Severne*, but much harder, and consequently more jolting, and cutting to the horses feet; nor is it so much as level, but rutts all the way; and what is remarkable, I found by them, that they build their waggons with their wheels full three inches nearer to each other than in the eastern counties, which is surprizing: a *Norfolk* or *Suffolk* waggon could not stir even in this *turnpike-road*.

This line of country is very hilly and picturesque; for the road runs all the way by the *Severne*, which has a bold shore, finely wooded, and breaks upon the view in a very pleasing manner. The land is good, and well cultivated; all inclosed, and letts, the arable for 10 s. and the meadow for 20 s. I was amazed to find that day-labour was much higher in this country, than on the other side of *Gloucester*.

LABOUR.

In winter, 10 d. and oftener 1 s.

In hay-time, 1 s. 6 d.

In harvest, 1 s. and board and beer.

PROVISIONS.

Bread, - - 2 d.

Butter, - - 6

Mutton and beef, 4

From *Newnham* to *Chepstow*, the road continues excessively stony, and made in the same vile manner as that from *Gloucester*; though here and there is a quarter of a mile that is pretty good: but their method of mending occasions their roads to be so very bad; this is sufficiently proved by about a quarter of a mile of good road, made by Mr. *Bathurst*, against his paddock; this is done with the same materials, with the only difference of reducing them to very small pieces, not larger than common pebbles, and widening and leveling it. In many places the road is so very narrow, that my chaise with great difficulty got through it without rising on the banks. The whole country covers a stratum of the same rock, which I first met with near *Woodstock*, and continued regularly from thence to *Chepstow*. But there is one circumstance, which would make the best turnpike in *England* extremely bad to travel, and that is the perpetual hills; for you will form a clear idea of them if you suppose the country to represent the roofs of houses joined, and the road to run across them,

The

The lands are rich and fertile, and the meadows, especially, very fine. The course of crops on their ploughed ground, is, 1. Fallow. 2. Wheat. 3. Pease. 4. Oats. 5. Turnips. 6. Barley. 7. Clover and ray-grass. They use oxen chiefly, many farmers keeping no horses, plough with five, six, and sometimes eight, and use only foot-ploughs of a very clumsy construction. They reckon two quarters and an half, a good crop of wheat, and three and an half of barley; about *Lidney*, land at an average lets for 14 s. *per* acre; but in some other places it runs up to 20 s. and more.

LABOUR.

In winter, 1 s.

In spring, 1 s. 2 d.

In harvest, 1 s. and board and beer.

Mowing grass, 1 s. 8 d. *per* acre, and beer.

PROVISIONS.

Butter, - - 6 d.

Mutton, - - 4

Beef, - - 3½

Bread, - - 2

Veal, - - 3

Around *Chepstow*, for some miles, there lies a great quantity of very good meadow-ground, which lets from one guinea to two *per* acre; but their arable land is in general about 12 s. They use oxen chiefly for

for ploughing, six at a time, and often mix them with horses. Labour, very dear; the same as last minuted; or if any difference, rather dearer.

About *Lanvachers*, which is the mid-way between *Chepstow* and *Newport*, they have a great mixture of good and bad husbandry. As to all the general œconomy and management of their farms, it is generally bad; for I found them universal in employing supernumerary hands and beasts, without giving their lands a proportionable culture, than which there cannot be a more unprofitable practice: their numbers of each appeared to me pretty much as 12 oxen and 4 or 5 horses to 100 acres of arable land, and 4 or 5 men-servants and boys, and as many labourers most part of the year; which on the whole, ought to be productive of infinitely better, and more garden-like husbandry than is to be met with here: and in the management of their people they are strangely remiss, for notwithstanding their wages are good, yet I found upon inquiry, that they suffered a surprizing degree of idleness among them, and languid execution of their business: and notwithstanding the soil is tolerably light, and many fields level, yet the ridiculous custom of ploughing with six, and even eight oxen continued here, which strength of cattle never did above an acre a day,

a day, and very frequently not above half an acre; and when they carry out their corn to the ports on the *Severn*, which are at a small distance, they don't load six or eight stout oxen with more than 10 sacks, not often more than eight. All these instances are marks of wretched ideas of general management. But with such signs of miserable œconomy I did not remark any fields of wheat or barley very foul with weeds; but in general clean crops, which is a point of great importance.

Their course of crops is in general as follows: 1. Fallow. 2. Wheat. 3. Barley. 4. Oats. 5. Ray-grass and clover, from three to eight years, then pare and burn; and 1. Fallow. 2. Wheat. 3. Barley. 4. Clover, two years. 5. Wheat. The first miserable husbandry, and the latter bad. Their fallow for wheat consists of three ploughings; they sow two bushels of seed (9 gallon measure) on an acre, and reckon a middling crop between 15 and 20 bushels; they then give two earths for barley, of which they sow three bushels, and consider from 16 to 20 bushels a middling crop. The oats they sow on one ploughing, $3\frac{1}{2}$ bushels to an acre; 15 the medium: when they throw beans in, which is no regular husbandry with them, they sow them on one earth, four bushels to an acre; or if they set them, two, and reckon

15 bushels a middling crop, but never hoe them. If they sow pease, which they likewise throw in irregularly, they give them but one earth to harrow in, but if for under-furrow, then they plough twice; fifteen bushels a medium, but never hoe. Turnips are not commonly sown, not so common as they ought, considering that some of their lands are extremely dry and light, but rich withal; but they never hoe them: their crops, therefore, may easily be supposed without description; they use them chiefly for their sheep, (of which, by the by, they have but few; Mr. *Morris* of *Persfield* had once a thousand, which is thought a wonder) but some feed their oxen with them. What apples they can have, I have no conception, for they sow above a quart of seed on an acre, and all the culture they give them, is that of a harrowing.

Farms are in general small, from 40 *l.* to 200 *l.* a year, but chiefly from 40 *l.* to 100 *l.* and the rents run from 7 *s.* 6 *d.* to 10 *s.* an acre arable, and about 12 *s.* or 14 *s.* grass; exceeding fine tracts of land are lett on an average at 15 *s.* Most of the farmers in this neighbourhood are sensible of the superior profit attending grass-lands, on comparison with arable, and accordingly they have generally more of it than of ploughed land. Lime is the great manure

manure here; they think little can be done without it; infomuch, that every large farm has a kiln for burning lime-stone, of which the whole country has quarries. They generally lay on what they call three dozen; some four or five, that is so many dozen bushels. I was informed in *Herefordshire*, the farmers go 20 miles, and pay 3 s. a dozen for it.

LABOUR.

Weekly pay, in general, 5 s.

In spring, 6 s.

In harvest, 6 s. and victuals; drink with all.

Reaping wheat, 3 s. and 3 s. 6 d.

Mowing grafs, 1 s. 6 d. and a dinner and drink.

But in some villages they are as follows.

In winter to harvest, 2 s. 6 d. a week, and victuals and drink.

In harvest, 5 s. and boys of from 7 to 12 years of age, from 1 d. to 1 ½ d. a day.

Reaping, 6 s.

Mowing grafs, 10 d. and a dinner every other day and drink.

These variations are unaccountable in so small a distance.

PROVISIONS.

Butter, - - - 6 d.

Whey ditto, for poor people, 3 ½ d. and 4 d.

Candles, - - - 6 d.

Mutton, - - - 4 d.

Beef

Beef, - - 3½ and 4 d.
 Veal, - - 2½
 Bread, - - 2
 Coals, 1 s. 3 d. for 2 Ct. laid in, and 3 s.
 for as much as six horses or oxen can
 draw from the pit.
 Cheese, 3 ½ d.

IMPLEMENTS.

But I know of nothing in this country
 so cheap, as the articles which form, what
 the farmers call wear and tear; a new
 waggon, irons and all complete, with a
 tire on the wheels near an inch thick, costs
 but from 8 l. to 10 l.

A good cart, 4 l.

A new plough and irons, from 7 s. 6 d. to
 10 s. 6 d.

A pair of horse-harrows, from 9 s. to 1 l.

I forgot to remark to you, that altho'
 they keep a good many hogs here, yet
 have they no idea of that exceedingly pro-
 fitable method of feeding them entirely
 with clover, they depend on nothing but
 whey for them; it is to the dairy they
 chiefly apply their grafs, though many
 beasts are fatted here.

But, my dear Sir, what am I to say of
 the roads in this country! The turnpikes!
 as they have the assurance to call them;
 and the hardiness to make one pay for.
 From *Chepstow* to the half-way house be-
 tween *Newport* and *Cardiff*, they continue
 M mere

mere rocky lanes, full of hugeous stones as big as one's horse, and abominable holes. The first six miles from *Newport*, they were so detestable, and without either direction-posts, or mile-stones, that I could not well persuade myself I was on the turnpike, but had mistook the road; and therefore asked every one I met, who answered me, to my astonishment, Ya-as. Whatever business carries you into this country, avoid it, at least, till they have good roads: if they were good, travelling would be very pleasant; for cultivated hills are of all other tracts of country the most picturesque, and most of these hills (which in more level countries, would be called mountains) are cultivated to the very tops, and cut into very beautiful inclosures by quick hedges. I must, however, allow that the last sixteen miles to *Cowbridge* they are exceeding good; the stones bound firmly together, no loose ones, nor any rutts.

Around *Newport*, though at no great distance from the last named place, I found a variation in some articles, which is worthy minuting: their course of crops is, 1. Fallow. 2. Wheat. 3. Barley. 4. Clover, two years. 5. Wheat. They have but a small proportion of grass to their arable lands, and use oxen in the cultivation; generally six to a plough, which scarcely

scarcely do an acre a day. For wheat they plough four times, and reckon 15 bushels a middling crop. For barley they plough three or four times, sow three bushels, and reckon 15 a middling crop. For oats they plough but once; sow $2\frac{1}{2}$ bushels, and 15 the medium. They plough likewise but once for beans, and in common never hoe them: but Mr. *Kemmish* of *Newport*, has introduced the method of setting them in rows, and keeping them clean by hand-hoes. Their culture of turnips is ridicule itself; for they plough but once, and drag in the seed with ox-drags, then harrowing, and never hoe; the crop may be guessed at. Farms in general run from 15*l.* to 150*l.* a year; and the rent of arable land from 5*s.* to 12*s.* an acre; and of grass from 7*s.* to 35*s.*

LABOUR.

All the year round, 10*d.* a day.

Mowing *per* acre, 1*s.* 8*d.* and dinner and beer. This is out of all proportion.

An ox-boy to drive, 4*d.* a day.

PROVISIONS.

Bread,	-	-	2 <i>d.</i> <i>per</i> lb.
Butter,	-	-	5
Mutton,	-	-	$3\frac{1}{2}$
Beef,	-	-	4
Veal,	-	-	2
Coals <i>per</i> bushel,	$3\frac{1}{2}$	10	gall. measure.
Cheese,	-	-	$3\frac{1}{2}$

About *Cowbridge* and *Bridgend* in *Glamorganshire* the husbandry is the most imperfect I ever met with; and totally contrary to the most common ideas in more informed counties. To give you some notion of their management, let me inform you that some farmers keep two, three, and four hundred sheep, and yet never fold them; which is so extravagantly stupid, that I was astonished at it: About *Bridgend* there are many farms which consist of a very light sand, especially near *Cantillon*, and yet no turnips are sown: one farmer from *England*, in the latter parish, sowed two acres, and was at great pains to hoe them well, and keep them clean; the neighbouring ones ridiculed him infinitely, and really thought him mad; but were surpris'd to see what a crop he gain'd, for it was very considerable, and he sold it by the sack to all the neighbouring towns to vast profit: this practice he has since continued; but strange to tell, has never been copied!

I walked over several tracts of land near *Bridgend*, bordering on the *Bristol* channel, which would produce admirable carrots and potatoes, and the crops which the country-people have of these roots in their gardens, on the very same soil as the fields, are excellent: I would engage to get as fine crops

crops of them on these lands as any in the world.

Their present husbandry, from the best information I could get, as well as a minute observation, is this; they fallow and lime, which is done very cheap; the quantity they lay upon a customary acre, which is eighteen feet to the perch, is four or five curnocks, as they call them, each twelve hoops, and each hoop three pecks, consequently 450 bushels on an acre, which they burn on their lands so cheap, as 1 s. 2 d. a curnock; others who purchase it, pay 2 s. 6 d. or 3 s. It lasts good four years; the course then is, 1. Wheat. 2. Barley. 3. Oats. 4. Oats. 5. Fallow. Others run different. 1. Wheat. 2. Barley. 3. Oats. 4. Pease or beans. Others again, 1. Wheat. 2. Barley. 3. Clover. 4. Wheat; but few, however, are considerate enough for this. They generally give three ploughings for wheat, sow three bushels, and reckon a middling crop from 25 to 30 bushels. Then for barley they plough twice or thrice more; and think 25 bushels a middling crop. Of beans, 15 bushels, but they never hoe them. For oats they never plough but once; and for pease twice. Sometimes they sow clover; and what I have not observed of an age, feed their hogs with it, even to depending in a good measure on it.

Farms are here in general small; from 30 *l.* to 100 *l.* a year is the common run of the country; and land about *Cowbridge* letts, the grafs at 20 *s.* and the arable at 10 *s.* but about *Bridgend*, where the soil is much more sandy, there is a great deal lett for 5 *s.* They employ oxen for most of the purposes of draught and tillage: to a farm of 50 *l.* a year, you will generally find eight, and two horses; they yoke four to a plough, and sometimes six, and plough an acre a day in common: but when they break up their fallows, not above half as much. Farmers who do not rent above 30 *l.* a year, keep only four oxen: in general I found their farms to contain more ploughed land than grafs.

LABOUR.

Prices all the year round:

Those men who have constant work, 1 *s.* a day.

An ox-boy to drive, 3 *d.* and 4 *d.* a day.

If labourers are taken at various prices, then they run as follow: In winter, 1 *s.*

In hay-time, 1 *s.* In harvest, 1 *s.* 6 *d.*

Reaping wheat, 4 *s.* and 4 *s.* 6 *d.*

Mowing corn, 1 *s.* 3 *d.* and 1 *s.* 6 *d.* and drink.

Mowing grafs, 1 *s.* 8 *d.* and drink.

PROVISIONS.

Bread, not quite 2 *d.* per lb.

Butter, - 5

Skim

Skim cheefe,	-	2 and 2 $\frac{1}{4}$ d. per lb.
Mutton,	-	3 $\frac{1}{2}$
Beef,	-	4
Veal,	-	3
Candles,	-	7

I forgot to tell you, that burnbeaking is known here and practised by some farmers, but not enough to have a settled price per acre for it; they do it therefore by the day. Most of their draughts are performed by one horse, in such a sledge as this. See Fig. I,

a. a. the shafts, like those of a waggon or cart which slide on the ground on the ends *b. b. c.* is a semicircular hoop from shaft to shaft, to keep in the sacks or bundle of hay or wood, &c. which is laid on the cross-bars, *d. d.* The machine is light, and much preferable to carrying the weight on the back.

It is a very great pity the *Glamorganshire* gentlemen do not on a large scale practise a better husbandry, that the force of numerous examples might influence the farmers to change their bad methods. Their soil is capable of as great improvements as any I ever saw, especially in the light parts. The great points they want to be well instructed in are these: *First*, The general management of their farms, in respect of draught cattle, to keep no more than necessary for their work; but if they will

keep a larger number, to give a better idea of employing them proportionably to the improvement of their lands. *Secondly*, Folding of sheep, many of them having good flocks, but never fold them. *Thirdly*, The turnip and carrot husbandry: great quantities of their land being admirably adapted to both, but unknown, and when a few turnips are sown, they are never hoed. *Fourthly*, The sowing of sainfoine, which grass would thrive finely upon their lime-stone lands; but they are unacquainted with it. *Fifthly*, Cropping their fields in a better course, and not continue in the vile custom of sowing a crop of barley, and two crops of oats after one of wheat, on the credit of a fallow and liming, which many of them do. No soil can be better adapted to such courses as these: 1. Turnips. 2. Barley. 3. Clover. 4. Wheat. 5. Carrots. 6. Oats. Or only 1. Turnips. 2. Barley. 3. Clover. 4. Wheat. But the former laying down with sainfoine, among the oats, is preferable.

The situation of *Glamorganshire* is very advantageous; few counties more so. For it lies along the *Bristol* channel, and has many little ports in it, by which means they have a ready market at *Bristol* for every thing; and on the western side lies their vast copper, lead, and tin-works, about *Neath* and *Swansea*, in which above

500 hands are employed, which necessarily occasion a great consumption. These works were established on account of the cheapness of coals and labour, for the copper and tin are brought over from *Cornwall*.

I should not omit to inform you, that *Cowbridge* is a very neat, clean, well paved, well built town; much prettier than either *Chepstow*, *Newport*, *Cardiff*, or *Bridgend*; the latter of which places, and its environs, form the westernmost point of my tour; I purpose on my return to *Chepstow*, to view Mr. *Morris*'s famous place at *Persfield*, and will aim at some description of it *.

* If your purpose is seeing *Persfield*, you go from *Chepstow* up the *Monmouth* road, (unless you go by water, which is a pleasant scheme enough) and pass directly to the house: we were shewn to an adjoining part of the garden, which consisted of slopes and waving lawns, having shrubby trees scattered about them with great taste, and striking down a short walk to the left, came at once to a little sequestered spot, shaded by a fine beach tree, which commands a landscape, too beautiful for pencil to paint;— This little spot, over which the beach-tree spreads, is levelled in the vast rock, which forms the shore of the river *Wby*, through Mr. *Morris*'s ground; this rock, which is totally covered with a shrubby underwood, is almost perpendicular from the water to the rail that encloses the point of view. One of the sweetest vallies
ever

From *Chepstow* we crossed the *Severn* to *Bristol*. This passage, as they call it, not a ferry, is sometimes rough; but we had fortunately a very agreeable one. It is two miles over; and we were only fifteen minutes in the boat (*a*).

On the road to *Bristol* I could see nothing but very rich grass, which lets from 20 s. and 30 s. to 40 s. an acre (*b*).

Mr. *Champion's* copper-works, about

ever beheld lies immediately beneath, but at such a depth, that every object is diminished, and appears in miniature. This valley consists of a complete farm, of about forty inclosures, grass, and corn-fields, intersected by hedges, with many trees; it is a peninsula almost surrounded by the river, which winds directly beneath, in a manner wonderfully romantic; and what makes the whole picture perfect, is its being entirely surrounded by vast rocks and precipices, covered thick with wood, down to the very water's edge. The whole is an amphitheatre, which seems dropt from the clouds, complete in all its beauty.

From thence we turned to the left, through a winding walk cut out of the rock; but with wood enough against the river to prevent the horrors, which would otherwise attend the treading on such a precipice: after passing through a hay-field, the contrast to the preceding views, we entered the woods again, and came to a bench inclosed with *Chinese* rails in the rock, which commands the same valley and river all fringed
with

three miles from *Bristol*, are very well worth seeing. They display the whole process; from the melting of the ore, to making it into pins, pans, &c. The liquid ore pouring out of the furnace into clay moulds, I fancy resembles the slight eruptions of mount *Vesuvius*. After being several times melted, it is poured into a flat mould of stone, to make it into thin plates, about four feet long and three broad,

with wood; some great rocks in front, and just above them the river *Severn* appears, with a boundless prospect beyond it.

A little further we met with another bench inclosed with iron rails, on a point of the rock which is here pendent over the river, and may be truly called a situation full of the terrible sublime: you look immediately down upon a vast hollow of wood, all surrounded by the woody precipices which have so fine an effect from all the points of view at *Persfield*; in the midst appears a small, but neat building, the bathing-house, which, though none of the least, appears from this enormous height, but as a spot of white, in the midst of the vast range of green: towards the right is seen the winding of the river.

From this spot, which seems to be pushed forward from the rock by the bold hands of the genius of the place, you proceed to the temple, a small neat building on the highest part of these grounds; and imagination cannot form an idea of any thing more beautiful than what appears

Those plates are then cut into 17 stripes, and these again, by particular machines, into many more very thin ones, and drawn out to the length of 17 feet, which are again drawn into wire, and done up in bunches of 40 s. value each ; about 100 of which are made here every week, and each makes 100,000 pins. The wires are cut into them, and compleated here, employing a great number of girls, who with

appears full to the sight from this amazing point of view. You look down upon all the woody precipices, as if in another region, terminated by a wall of rocks : just above them appears the river *Severn* in so peculiar a manner, that you would swear it washed them, and that nothing parted you from it but those rocks, which are in reality four or five miles distant. This deception is the most exquisite I ever beheld, for viewing, first the river beneath, then the vast rocks rising in a shore of precipices, and immediately above them the noble river, as if a part of the little world immediately before you ; and lastly, all the boundless prospect over *Gloucestershire* and *Somersetshire*, are, together, such a bewitching view, that nothing can exceed it, and contains more romantic variety, with such an apparent junction of separate parts, that imagination can scarcely conceive any thing equal to the amazing reality. The view to the right, over the park, and the winding valley at the bottom of it, would, from any other spot but this, be thought remarkable fine.

The

little machines, worked by their feet, point and head them with great expedition: and will each do a pound and half in a day. The heads are spun by a woman with a wheel, much like a common spinning-wheel, and then separated from one another by a man, with another little machine like a pair of sheers. They have several lapis calaminaris stones for preparing it to make the brass, of which they form a vast

The winding road down to the cold bath, is cool, sequestered, and agreeable. The building itself is excessively neat, and well contrived, and the spring, which supplies it, plentiful and transparent. You wind from it up the rock; but here, I must be allowed just to hint a want, if any thing can be wanted in such a spot as *Persfield*. This walk from the cold bath, is dark and rather gloomy, breaks and objects are rather scarce in it; the trickling stream you have just left, puts one in mind of a cascade, which would be here truly beautiful, but does not appear throughout all the walks of *Persfield*. On the left, towards the valley, there is a prodigious hollow filled with a thick wood, which almost hangs beneath you; from the walk, an opening drown through this wood might easily be made, with just light enough let in, to shew to advantage the gush of a cascade; to look backwards, assant upon such an object, would be infinitely picturesque amidst the brownness of this hanging grove. I know not whether water could be brought

number of aukward looking pans and dishes for the negroes, on the coast of *Guinea*. All the machines and wheels are set in motion by water ; for raising which, there is a prodigious fire engine, which raises, as it is said, 3000 hogheads every minute.

On the other side of *Bristol*, land presently declined in richness ; for about half way between *Bristol* and *Bath*, arable letts

brought there ; but if it could, never was there a situation for viewing it to such advantage.

Passing on, there are two breaks, which open to the valley in a very agreeable manner. You are then lead through an extremely romantic cave, hollowed out of the rock, and opening to a fine point of view. At the mouth of this cave some swivel guns are planted ; the firing of which occasions a repeated echo from rock to rock in a most surprising manner. Nor must you pass without observing a remarkable phenomenon a large oak, of a great age, growing out of a cleft of the rock, without the least appearance of any earth. Pursuing the walk, as it rises up the rocks, and passes by the point of view first mentioned, you arrive at a bench, which commands a view delicious beyond all imagination : on the left you look down upon the valley, with the river winding many hundred fathom perpendicular beneath, the whole surrounded by the vast amphitheatre of wooded rocks ; and to the right full upon the town of *Chepstow* ; beyond it the *Severn's* windings, and
a pro-

for so little as from 5 s. or 6 s. an acre to 12 s. and good grafs for near 20 s. Their course of crops, taken in general, is, 1. Fallow. 2. Wheat. 3. Barley. 4. Clover. Mountains of coal ashes might be had around *Bristol*, but few farmers seem to fetch them.

LABOUR.

In winter and spring, 1 s. and 1 s 2 d.

In hay and corn-harvest, mowing and reaping, 1 s. 6 d. dinner and beer.

a prodigious prospect bounding the whole. Whenever you come to *Persfield*, rest yourself some time at this bench, for believe me, it is a capital view.

From thence an agreeable walk, shaded on one side with a great number of very fine spruce firs, leads you to an irregular junction of winding walks, with many large trees growing from the sequestered lawn, in a pleasing manner, and figures by contrast to what presently succeeds; which is a view, at the very idea of which, my pen drops from my hand: — The eyes of your imagination are not keen enough to take in this point, which the united talents of a *Claud*, and a *Poussin*, would scarcely be able to sketch. Full to the left, appears beneath you, the valley, in all its beauty, surrounded by the rocky woods; which might be called (to use another's expression) a coarse selvage of canvass around a fine piece of lawn. In the front, rises from the hollow of the river,

PROVISIONS.

Bread,	-	-	2 d. per lb.
Butter,	-	-	6
Mutton,	-	-	4
Beef,	-	-	4
Veal,	-	-	3½

Not far out of *Bristol*, I had the satisfaction of remarking a three-acred piece of drilled *Lucerne*, which particularly

a prodigious wall of formidable rocks, and immediately above them, in breaks, winds the *Severn*, as if parted from you only by them: on the right is seen the town and castle, amidst a border of wood, with the *Severn* above them, and over the whole, as far as the eye can command; an immense prospect of distant country. I leave your imagination to give the colours to this mere outline, which is all I can attempt.

The sloping walk of ever greens, which leads from hence, is remarkably beautiful in prospect; for the town and country above it appear perpetually varying as you move; each moment presenting a fresh picture, till the whole is lost by descending. You next meet with the grotto, a point of view exquisitely beautiful; it is a small cave in the rock, stuck with stones of various kinds; copper, and iron cinders, &c. You look from the seat in it immediately down a steep slope on to a hollow of wood, bounded in front by the craggy rocks, which seem to part

caught my attention, notwithstanding a pile of building within sight, *strange and odd*, at least. I made the necessary inquiries concerning the history of this lucerne, and found that the owner, Mr. *Reeves*, had before tried four acres of it, but without success; that he then sowed this piece of three acres, on a different soil, and with better success. It was mowed last year three times for hay, to mix with common

you from the *Severn* in breaks; with the distant country, spotted with white buildings above all; forming a landscape as truly picturesque as any in the world. The winding walk, which leads from the grotto, varies from any of the former; for the town of *Chepstow*, and the various neighbouring objects, break through the hedge, as you pass along, in a manner very beautiful:—passing over a little bridge which is thrown across a road in a hollow way through the wood, you come to an opening upon a scoop of wood alone, which being different from the rest, pleases as well by its novelty, as its romantic variety. Further on, from the same walk, are two other breaks which let in rural pictures; the latter opens to a hollow of wood, bounded by the wall of rocks, one way, and letting in a view of the town another, in an exquisite taste. The next opening in the hedge (I should tell you, by the way, that these breaks and openings are all *natural*, none *stiffly artificial*) gives you at one small view, all the picturesque beauties of a *natural camera obscura*; a bench which is thickly

N

shaded

hay ; but it had not been cut this year, a circumstance which surprized me ; for the beginning of *July* is very late indeed for the first cutting of *Lucerne* ; and I should apprehend, proved sufficiently, that the soil was not yet hit off with any great luck —unless, indeed, it arose from a want of culture ; for I remarked the spaces between the rows to be very full of weeds, though I was told *Mr. Reeves* had given it much hoeing and cleaning.

shaded with trees, in a dark sequestered spot, from which you look aside through the opening, to a landscape that seems formed by the happiest hand of design, it is really nothing but catching a view of accidental objects. The town and castle of *Chepstow* appear from one part rising from romantic steepes of wood, in a manner too beautiful to express ; a small remove discovers the steeple so dropt in the precise point of taste, that one can scarcely believe it real, and not an eye-trap. Soon after a large break opens a various view of the distant country ; and not far from it another, which is much worthy of remark ; you look down upon a fine bend of the river, winding to the castle, which appears here romantically situated ; the opposite bank is a swelling hill, part overrun with gorse and rubbish, and part cultivated inclosures : this difference in the same object, is here attended with emotions not consonant ; the wild part of the hill suits the rest of the view, and agrees with it in the sensations it raises, but the cultivated part
being

My stay in *Bath* was but very short: I spent a few hours with my very excellent friend, Mr. *Harte*, canon of *Windsor*; whose conversation, on the subject of husbandry, is as full of experience, and as truly solid, as his genuine and native humour, extensive knowledge of mankind, and admirable philanthropy, are pleasing and instructive. One hour spent in this gentleman's company, I prized more than

being incomplete, and unlike the beautiful farm, at the bottom of the before-mentioned amphitheatre, which is entire, has a bad effect. Was the whole well cultivated and lively, being rather distinct from the rest of the landscape, it would have a much better effect.

The last point, and which perhaps is equal to most of the preceding, is the alcove. From this you look down perpendicularly on the river, with a cultivated slope on the other side. To the right is a prodigious steep shore of wood, winding to the castle, which, with a part of the town, appears in full view. On the left is seen a fine bend of the river for some distance, the opposite shore of wild wood, with the rock appearing at places in rising cliffs, and further on to the termination of the view that way, the vast wall of rocks so often mentioned, which are here seen in length, and have a stupendous effect. On the whole, this scene is striking.

About a mile beyond these walks is a very romantic cliff, called the Wind Cliff, from which the extent of prospect is prodigious; but it is

all the architectural beauties of *Bath*, which you would not, however, fail of admiring greatly. Believe me, *Bath* greatly exceeds *London* in regularity of building, and in being proportionally a much finer city: the most criticising eye must allow that the Circus is truly beautiful, and ornamented to that just degree of elegance which, if I may be allowed the expression, lies between *profusion* and *simplicity*.

most remarkable for the surprising echo, on firing a pistol or gun from it. The explosion is repeated five times very distinctly from rock to rock, often seven; and if the calmness of the weather happens to be remarkably favourable, nine times. This echo is curious. Beyond the cliff at some distance is the abbey, a venerable ruin, situated in a romantic hollow, belonging to the Duke of *Beaufort*, well worth your seeing; and this is the conclusion of the *Persfield* entertainment.

Upon the whole, it exceeds any thing of the kind I have seen. In point of striking picturesque views, in the romantic stile, *Persfield* is exquisite. The cultivated inclosures, forming the bottom of the valley, with the river winding round them, and the vast amphitheatre of rocks and pendent woods which wall it in, to such a stupendous height, is the capital beauty of the place, and Mr. *Morris* has fixed his benches, &c. in those points of view which command it in the happiest manner, with the utmost taste: Nor can any thing be more truly picturesque, than the appearance

From this noble city, I took the road to the *Devizes*. The soil is generally very good, particularly the grafs-lands, of which there is the greatest quantity. They lett from 20 s. to 30 s. an acre, and the arable and grafs all around *Melksham* at 20 s. on an average, which is high. In that neighbourhood they sow all sorts of grain; but one circumstance which gave me concern, was the falling off I perceived in the use of

pearance which the *Severn* takes in many places, of being supported and bounded by the wall of rocks, though four miles distant; this effect is beyond all imagination striking. In respect to the extensive prospects,—the agreeable manner in which the town, castle, and steeple are caught, with the rocks, woods, and river taken in themselves, other places are equal; but when they unite to form the landscapes I have just mentioned, I believe they never were equalled.

Throughout the whole of these walks, it is evident, that Mr. *Morris* meant them merely as an assistance to view the beauties of nature; as a means of seeing what nature had already done to his hands, and without a strong design of decoration or ornament. Every thing is in a just taste; but as I have been particular in speaking of all the beauties of *Persfield*, I must be allowed to hint a few circumstances wanting to render it complete. But do not imagine I mean in the least to disapprove the taste of the most ingenious owner; by no means; I am not certain that it would be possible to add what I am going to

oxen; scarce any ox-teams are kept between *Bath* and the *Devizes*; all the country-people I talked with, shook their heads at the mention of oxen, and gave immediate preference to horses.

LABOUR.

In winter to hay-harvest, 10 *d.* a day,

In hay-harvest, 1 *s.* 2 *d.* and 1 *s.* 3 *d.*

Reaping wheat, 4 *s.* 5 *s.* 6 *s.* and 7 *s.* an acre.

Mowing spring corn, 1 *s.*

mention; but I minute them merely that your idea of *Persfield* may be exact; and that you may not mistake any general exceptions I have made use of, to imply beauties which are not here.

The river *Why*, which runs at the bottom of the walks, is an infinite advantage; but it is by many degrees inferior in beauty to a fresh water one, which keeps a level, and does not display a breadth of muddy bank at low water; and the colour is very bad; it has not that transparent darkness, that silver-shaded surface, which is, of itself, one of the greatest beauties in nature, and would among these romantic objects give a lustre inexpressibly elegant. — Cascades are likewise much wanting; in such steep of wood and embrowning hollows that have a pleasing solemnity, nothing has so glorious an effect, as breaking unexpectedly upon a cascade, gushing from rocks, and over-hung with wood: there are many spots in the *Persfield* hollows, which would point out in the strongest manner the

PROVISIONS.

Bread,	-	-	2 d. per lb.
Butter,	-	-	5
Mutton,	-	-	4
Beef,	-	-	4
Veal,	-	-	4

The dreary tract of country, from the *Devizes* to *Salisbury*, affords but little that is remarkable in husbandry comparable to what might be expected from a cultivated

the beauty of such objects.—Lastly, There is a want of contrasts ; for the general emotions which arise on viewing the rocks, hanging woods, and deep precipices of *Persfield*, are all those of the *sublime* ; and when that is the case, *the beautiful* never appears in such bewitching colours, as those it receives from contrast ; to turn suddenly from one of these romantic walks, and break full upon a beautiful landscape, without any intermixture of rocks, distant prospect, or any object that was *great* or *terrible*, but on the contrary, *lively* and *agreeable*, would be a vast improvement here ; and I venture the remark the rather, because those views at *Persfield*, which *are* beautiful, are all intermixed with the sublime ; the farm beneath you, is superlatively so ; but the precipice you look down from, the hanging woods, and the rocks, are totally different. The small break, however, through the hedge, which catches the town and steeple, is in this taste ; but even here, some large rocks appear. Small elegant buildings, in a light and airy taste, rising from green and gently swelling slopes,

one; but it must by no means be passed over without attention. I was fortunate in meeting with a very intelligent occupier of near 500 *l.* a year, who gave me a consistent and clear account of the state of farming in that vast tract of open country, and he agreed with the other pieces of intelligence I gained.

The farms, I found, were in general extremely large: two or three hundred

with something moving near them, and situated so as the sun may shine full upon them, viewed suddenly from a dark romantic walk, have a charming effect: but it must strike every one who walks over *Persfield*, that the finest seats, &c. are seen rather too much before you step into them; they do not break upon you unexpectedly enough: in many of them you see the rails, which inclose them on the brink of the precipice, at a small distance before you enter. What an effect would the view from the grotto, for instance, have, if you entered it from behind, through a dark zig-zag narrow walk!

Excuse these hints which I throw out with great reluctance, for *Persfield*, notwithstanding these trifles, is a place full of wonders, and will yield you amazing entertainment; this I am sure of, for I know your taste. Before I finish this tedious description, I cannot avoid mentioning the spirit with which Mr. *Morris* has his place shown; he has always people ready to attend whoever comes, to conduct them every where, and not one of them is suffered to take any thing;

pounds a year, they reckon *small*; from that rent to 1000 *l.* a year, are common. The rent of land appeared to me very reasonable; for their arable lands they pay generally 7 *s.* or 8 *s.* an acre; and as to the plain, they have their shares of that into the bargain. Many of them have six, seven, or eight hundred acres of arable land; and some never *sow* less than five hundred. The flocks of sheep they keep

thing; yet they shew all with great readiness and civility.

(a) From the landing-place I passed to *King's Weston*, the seat of *Edward Southill, Esq.*; built by *Sir John Vanburgh*. It is in his heavy stile; the hall is rendered totally useless, by a vast echo. Before one of the chimnies, is a prodigious pair of elk's horns, dug out of a bog in *Ireland*: the finest picture is that of *Lord Thomas Cromwell*, by *Holbein*, an exceeding good one.

The lawn, which the house looks upon, is very beautiful; but for a prospect, you must go up the hill, a little beyond where the breakfasting house for the hot-well company is situated; you look down from the hill to the left upon some fine woods, in the midst of which, *Mr. Southill's* house appears. In front is a very fine valley, two miles broad, beautifully intersected with hedges and trees, and bounded by the *Severn*, which is here ten miles over; you command *Kingroad*, with a fleet of shipping, generally

on the plain, are I believe, as great as most in *England*; they run in number from 3 and 400, to 3000; fold them the whole year round, and shift the folds every night. No oxen are used, but all horses. The particulars of a farm of 500 *l.* a year, were,
18 or 20 horses.

20 men and boys all the year.

They use three or four horses to a plough; who scarcely do an acre a day. The parti-

rally lying at anchor; and, lastly, the *Welsh* mountains terminate the whole. Behind, there is an extensive view of the country, well scattered with villages: the windings of the *Severn* are seen 20 miles, and those of the *Avon* quite to *Bristol*. The prospect extends into *Somersetshire*, *Glostershire*, *Monmouthshire*, *Glamorganshire*, *Brecknockshire*, *Radnorshire*, and even to *Pembrokeshire*; and, upon the whole, is inferior to nothing, but the most astonishing one in the *Billicray* road, already described.

(*b*) There are a few things in the neighbourhood of *Bristol*, which I should advise any curious traveller to view; and none more remarkable than *St. Vincent's* rock, behind the hotwell: it hangs over the river *Avon* in vast and tremendous cliffs, of a prodigious height, and in a place where the river winds a little; they form on one side a vast amphitheatre, which, is a most sublime sight. The opposite shore of the river is very steep, but quite covered with wood; the verdure of which is a strong contrast to the barren craggy rock.

cular culture they give each crop, I found nearly as follows ; but first I should tell you their course is, 1. Fallow. 2. Wheat. 3. Barley, and then fallow again ; unless hop, clover, or ray-grass are thrown in, or sainfoine, which they leave as long as it will last. Their preparation for wheat is three earths ; sow three bushels, and reap, on a medium, $2\frac{1}{2}$ quarters, measure nine gallons. They likewise plough thrice

At *Clifton*, a village hard by this rock, there is a grotto to be seen, curious in materials and taste : you enter it under-ground, through a dark arched passage of brick, which has much the air of an approach to a wine-vault : on opening the door, the first object which strikes you, is a den, with the statue of a lion in it. Pleasing objects are generally wished for in a sequestered grot ; but the owner of this is more pleased with those of terror.

Rustic pillars, the workmanship of nature, (or at least so in appearance) which seem to support a craggy roof, are by no means amiss in a grotto ; but this gentleman delights in *the regular works of art*, and accordingly four tuscan pillars are here the supporters of the roof.—A small cascade issuing from broken apertures in a rock, and falling in little sheets on straggling sea-weed, coral, fossils, &c. is natural. Here is a cascade indeed ; but it pours out of the urn of a river god.—Any thing manifestly carrying the appearance of art, in such an imitation of nature, is painful ; a stair-case of wood,
for

for barley, sow four bushels; and reckon a middling crop 3 qrs. When they sow oats, they plough but once; throw in five bushels of seed, and gain, on a medium, 5 qrs. For beans one ploughing; plant two bushels, hoe them twice, and reap, on a medium, 3 qrs. For pease, they plough seldom above once; sow four bushels, and when in rows after the plough, hoe them, and reckon two quarters and a half a mid-

for instance. But in this celebrated one, *art* out-does all common art; for here is a door and stair-case *painted!* to make some amends for the want of a real one.—Light to view such objects as these should come in no common manner; you may possibly imagine, that it breaks from one aperture in the rock to another, and at last enters by refraction, you know not where: nothing in this mean stile, I assure you; a plain sky-light of glass, gives you the sun's rays in their native heat, which acts by contrast on the coolness of the water.—But to have done with *disposition*, and come to *materials*: There is the utmost profusion of *Bristol* stone, many of the pieces very fine; the four pillars are stuck with nothing else: likewise a great number of fine shells, fossils, corals, spar, &c. all in greater plenty, and better of their sort, than in any grotto I have seen.—This gentleman at one end of his terrass has a summer-house with *gothic* battlements, and windows encompassed by a colonade on *tuscan* pillars, and in his garden other curious strokes of — But I have done;
 not

dling crop. They sow a great many turnips, plough for them three times, hoe them twice, and use them for feeding their sheep. Hogs they feed only with whey, grains, &c. none upon clover.

LABOUR.

In winter, and quite to harvest, 10 *d.* a day.

In harvest, 1 *s.* 8 *d.* ditto.

Reaping wheat, 5 *s.* an acre.

Mowing corn, 10 *d.*

——— Grass, 1 *s.* 8 *d.*

A boy of seven or eight years old, 2 *d.*

nor should I have ventured so far, but for an affectation of keeping them locked up from common eyes.

When we had been sufficiently feasted with these objects of taste; we viewed the front of Mr. Cozen's house at *Redlands*: it is of white stone, light, and elegant. I never saw any thing pleased me so much, except *Holkam* and *Spencer* house in the green park; and one would think that doors are of infinitely difficult architecture, for these three houses have, to appearance, none. The architect of this, indeed, forgot that his center window did not look like one; and has, accordingly, built and planted a long, but absurd approach from the road to it; and several flights of steps in the garden, seem to lead only to the windows: whenever there is no appearance of a door, equal to the front, no particular line of approach to the center should be suffered — The chapel in the village, is neat and pretty.

I M P L E M E N T S.

A new waggon, 20*l*.A cart, 10*l*.A plough, 18*s*.Harrows, 7*s*. 6*d*.

P R O V I S I O N S.

Bread, - - 2*d*. per *lb*.

Butter, - - 7½

Mutton, - - 4

Beef, - - 4

Cheese, - - 3

I forgot to tell you, that they sometimes pare and burn; the price 15*s*. an acre. Was my attention directed more towards curiosities, I should fill several pages concerning *Stone Henge*, which lies but a little way out of the road from the *Devises* to *Salisbury*. The stones are in form and size really stupendous, and the idea of the difficulty of moving and raising them, is very great. The country, even on this side the *Devises*, has certainly a quarry under it, from whence they might be dug; but if the difficulty of the removal is thought too great, *Quere*, If they are not a composition?

Before we came to *Salisbury*, we turned to the right a little, to view *Wilton*, famous for its manufactory of carpets, and the feat

of the Earl of *Pembroke**. I found the manufacturing journeymen earned, in general, about 10 s. or 12 s. a week; and their number about 60 or 80.

Near the turnpike, turning into *Salisbury*, I met with a small field of Lucerne, drilled in rows, at one foot distance, belonging to Mr. *Hunt*, a brick-maker. It is three years old; was cut four or five times the two years last past. Some of it was cut twice

* Lord *Pembroke's* seat, at this place, is a very ancient building, having been a monastery in the beginning of Queen *Elizabeth's* reign: the disposition of the apartments is, of course, very irregular; for which reason you must excuse my being exact, in going from one into another, according to their situation.

In the court, before the front, stands a column of white *Egyptian* granite, with a statue of *Venus* on the top of it; extremely fine, and worthy of attention from the curious in these matters. It is the same as was set up before the temple of *Venus Genetrix*, by *Julius Cæsar*. In one of the niches of a pedestal, in the inner court, is a statue of *Venus* picking a thorn out of her foot; the turn of the body is inimitable, and the expression of pain in her countenance, fine.

The hall is 50 feet by 28, with a gallery in the same stile as the *Houghton* one: It contains a vast profusion of statues, busts, and basso relievos. I made memorandums of those which struck me most; for the number of the whole is

this year, and the rest of a proper height for cutting; very thick, vigorous, and well looking. It was used for feeding horses green, and reckoned a great improvement. This little piece of intelligence, in favour of my favourite grass, pleased me not a little. Before I totally quit this vast plain, I should remark two particulars; the first is, that for many miles between *Devizes* and *Salisbury*, there grows in the turf a vast

is so great, that it would almost fill a volume to mention the beauties of them: the house-steward sells a half-crown catalogue to those who chuse to purchase it.

Statue of *Didia Clara*; drapery exceedingly fine.

Ditto, *Euterpe*, by *Cleomenes*; elegantly done.

Bust of *Nero*; the countenance expressive of his foul.

Ditto, of *Lucilia*; very fine.

Statue of *Hercules* dying; vast expression.

An Alto Relievo, *Saturn*; most exquisitely performed.

An Alto Relievo, *Endymion* asleep; a wretched posture.

Ditto, *Saturn* crowning arts and sciences; very fine.

On each side the door leading to the stair-case, is a copy by *Wilton*; one the *Venus de Medicis*, and the other *Apollo of Belvidere*. These are not only the best copies of those statues in *England*, but are most inimitably done. Let us lay aside all prejudices, upon account of their being but copies, and examine them for a moment as originals.

quantity of wild Burnet, which seems exactly like the cultivated sort; but is, itself, a dwarf kind. Secondly, I never saw so good sheep-walks as all this country; the verdure is good, and the grass, in general, fine pasture, such as would turn to prodigious account, if converted to the purposes of tillage, and let me add, population. This expression puts me further in mind of the vast improvements which *Salisbury* plain calls for. In twenty miles I met

originals. The easy, graceful attitude of the *Apollo*, was never exceeded; nor had ever drapery so light, airy, and elegant an appearance; the robe falling on one side, and thrown negligently over the stretched out-arm, is a stroke of grace beyond description. And the beauty and delicacy of the *Venus* amazingly fine.

In the billiard-room.

Statue of *Marcus Antoninus*; the hand turned behind the drapery very finely.

Ditto, *Venus*; attitude fine, but bad drapery.

In the chapel room is a chimney-piece of *Inigo Jones*; but very heavy.

Statue of a River Nymph; exceedingly elegant.

New dining-room, 45 by 21.

Pictures in this room, not mentioned in the catalogue they fell at the house.

M. Angelo. Fruit pieces.

Zaccharelli. Landscape.

Salviati. Our Saviour in the wilderness.

Vernet. Landscape exceedingly fine; the clear obscure inimitable.

Vandy. Himself.

The Duke d'Espernon.

with only one habitation, which was a hut. A very little reflection will tell us, that such a vast tract of uncultivated land is a public nuisance. This plain is as broad as it is long, besides many irregular breaks into the adjoining cultivated country; therefore, if we calculate the area at a square of 22 miles, it will, I am confident, be under the truth. Now, it has been calculated, that all the corn exported from *England*,

Rubens. Harvest home.

St. Luke. *Virgin and our Saviour*: You will be surprised to find *St. Luke* in a catalogue of painters; but the housekeeper tells you, with a grave face, there are writings in the library which prove it: but it is too good for *Palestine* or *Judea*; it is very fine.

If I am not mistaken, it is this room that the Descent from the Cross, by *Albert Durer*, is removed into. It appears to me to be one of the very finest pieces in this collection; it consists of 11 figures of the most capital expression. The bloody body of Christ is wonderfully painted: I beg you will take particular notice of this picture, if ever you see *Wilton*; for it is by far the greatest work I have seen of this master's, and which ranks him with the greatest of painters.

The hunting-room, 25 square.

I stopped for a while, to admire the bust of *Mago*; that great genius, whose husbandry writings were the only remnant *Rome* allowed of her proud rival, *Carthage*.

Cube-room, 30 square.

Double-

would annually grow on such a square: What an argument is this for cultivating it! Innumerable are the arguments and clamours against exporting so much corn; when the cultivation of one single plain would yield nearly the whole: but if with strict deductions, on account of fallow, grasses, &c. half was only produced, it would, I apprehend, be thought the best method of remedying any imaginary evils attending exportation. I do not believe

Double-cube, 60 long, 30 broad, and 30 high: a most elegant room, in which proportion pleases every eye: a greater breadth would possibly be an improvement; but there can be no comparison between the proportion of this room, and those of cubes, or any other form, in which the height is equal to, or more than the length. One end is covered by the famous *Pembroke* family, by *Vandyke*; one of the finest pictures of the kind in the world. Over the chimney is another *Vandyke*, exceedingly elegant; King *Charles's* children.

The tables in this room are very fine, particularly that of *Verde-Antique*. In the lobby, I remarked a *Sappho* in ivory; of most amazing sculpture, and in admirable perfection: here is a *Nativity* by *Van Eyck*, excellent.

The King's bed-chamber, 30 by 25.

The corner-room, 25 square.

The pictures which struck me most in this room were,

Titian. *Mary Magdalen*; very fine.

M. Angelo. *Descent from the Cross*; wonderfully great.

there is really a barren acre of land in all this tract; for the soil, wherever I remarked it, is a fine light loam, yielding exceeding good grasses, and would bear as fine corn as any in the world. The common plea in favour of downs and sheep-walks, is the produce of wool; but the most exact calculations that can be made plainly prove the vast superiority of arable farms, with a proper proportion of grasses; nor does the wool of any tract of land, in

Dominichino. *Mary Magdalen*; flesh finely painted.
Penni. *Christ* astride upon a lamb: *Joseph's* head exceedingly fine; he is looking on.

Vanderwerfe. *Mars* and *Venus*; very fine.
Rubens. The four Children; exceeding elegant. It is said to be the finest in *England* of this master.

Nativity on copper; beautiful.

In the Black Marble Table Room, *Cleopatra* sitting, with *Cæsarion*, her son, on her lap, sucking; the attitude is extremely easy and elegant.

Venus asleep; beautiful.

Inigo Jones's front is reckoned very capital; and not without reason. In the garden is an arcade; the front of it likewise by *Inigo*, and beautiful. The stable piazza was also built by him. The bridge, built by the late Earl of *Pembroke*, from a design of *Palladio*, is much esteemed; but I must own, it did not answer my expectations; appearing to me, rather heavy. Upon the cold bath is a beautiful copy of the *Antinous*.

the employment of manufacturers, by a hundred degrees equal the population attending the plough. What an amazing improvement would it be, to cut this vast plain into farms, by inclosures of quick hedges; with portions planted with such trees as best suit the soil! A very different aspect the country would present from what it does at present, without a hedge, tree or hut; and inhabited only by a few shepherds and their flocks.

Salisbury is one of the prettiest towns in *England*; the market-place is well built, the whole exceedingly clean, and with one circumstance I never observed in any other place, a small transparent stream runs through every street; in many of them two, one on each side, instead of gutters: The effect of this in cleanliness and beauty is very great.

The country between *Salisbury* and *Romsey* is generally inclosed, and well cultivated: I found the husbandry pretty much the same across from *Bruchalk* to *White Parish*, and then along to *Romsey*: their course of crops, with some variations, is, 1. Fallow. 2. Wheat. 3. Barley. 4. Oats, pease or beans, or fetches: or — 1. Fallow. 2. Wheat. 3. Barley. 4. Hop, clover, or ray-grass for two years. For wheat, they plough three or four times, sow three bushels, or $3\frac{1}{2}$ on an acre, in *July* and *August*; and reckon 3 quarters a middling

middling crop. For barley they plough from once to thrice, sow four bushels, and get, on a medium, 3 quarters and an half, or 4 quarters. Oats they plough for but once, sow 5 or 6 bushels; and gain, on a medium, from 4 to 5 quarters, which is a very good crop. They plough twice for beans, sow 4 bushels, and reap seldom, on a medium, above 2 quarters; but then they never hoe them. For pease they vary greatly; about *Bruchalk* they plough but once, whereas, around *White Parish*, they stir twice or thrice for them; both sow three bushels, and reckon 2 quarters, and two and a half a middling crop. In turnips they vary still more; for between *Salisbury* and *Romsey*, they plough four or five times for them; hoe them once, and feed them off with sheep for wheat; but about *Bruchalk*, they plough up a wheat stubble, and harrow them directly in, never hoeing.

About *Salisbury*, and towards *Bruchalk*, their flocks are very large, from 500 to 3000. Mr. *Cush* of *Winterbridge*, has upwards of 3000; they fold every night. Some poor lands they mend with chalk, which is of the rich, fat, soapy kind, and lay on about 20 waggon loads *per* acre, which is a good improvement for 20 years. In all this country, they have no notion of feeding hogs, by turning them into clover; nor do they any where here use oxen for

the purposes of husbandry, except, alone, the Dutchess of *Queensbury*, at *Amersbury*. who keeps two or three teams. They reckon that an hundred acres of arable land require six good horses to be kept; they never plough with less than three, towards *Bruchalk*, always have a boy to drive, and generally do rather better than one acre a day; but about the *Romsey* road, they use four, and generally five, to do an acre. Farms in the latter track are small; 200 *l.* a year they reckon a large one; there are many from 20 to 60 *l.* and some so low as 10 *l.* The rents run high, from 15 *s.* to 20 *s.* an acre. But towards *Bruchalk* the farms are charge; some few of 40 *l.* or 60 *l.* but run up to seven and eight hundred pounds a year.

I observed in *Salisbury*, large heaps of coal ashes, and mortar rubbish; and on inquiring, if the farmers did not bring it away, I found they served the inns with straw, for the dung in return, but would not take the other manure without 3 *d.* or 4 *d.* a load with it; which is a strange instance of mistaken notions.

LABOUR.

In winter, 10 *d.* towards *Bruchalk*.

———— 1 *s.* ————— *Romsey*.

Summer to harvest, 1 *s.* *Bruchalk*.

———— 1 *s.* 3 *d.* *Romsey*.

Harvest, 1 *s.* 6 *d.* and beer, or 1 *s.* 2 *d.* and victuals and drink.

Reaping wheat, 4 s. 6 d. and 5 s.

Mowing corn, 1 s. and 1 s. 2 d.

——— Grass, from *Salisbury* to *Bruchalk*,
2 s. 6 d. an acre, to *Romsey*, 1 s. 6 d.

Hoeing turnips, 2 s. 6 d.

Children 15 years old, 4 d. or 5 d.

IMPLEMENTS.

These are the same as from the *Devizes*.

PROVISIONS.

Bread,	-	-	-	1 $\frac{1}{2}$ d. per lb,
Butter,	-	-	-	6 $\frac{1}{2}$
Mutton,	-	-	-	4 $\frac{1}{2}$
Beef,	-	-	-	3
Veal,	-	-	-	2 $\frac{1}{2}$
Cheese,	-	-	-	3 $\frac{1}{2}$

As to manufactures, there are considerable ones of flannels and linseys at *Salisbury*; at which the journeymen earn from 7 s. to 9 s. a week the year round: and at *Romsey*, near 500 hands are employed in making those shalloons which are called *Rattinets*: the journeymen earn, on an average, 9 s. a week all the year; and a girl of sixteen or eighteen, a shilling a day by weaving, but in the neighbouring villages, by spinning, not above half as much; the children are employed at quilting very young.

The road from *Salisbury* to *Romsey*, and the first four miles from thence to *Winchester*, I found so remarkable good, that
I made

I made particular inquiries concerning their making and mending it. They first lay a foundation of large stones, which they level with smaller ones; then make a layer of chalk on that gravel, and, lastly, another of sifted gravel, exceeding fine; and in some places tending towards a sand. It is many miles as level, as firm, and as free from loose stones as any the finest garden walk I ever beheld; and yet the traffic is very great by waggons. But scarcely the print of a wheel is to be seen on it for miles; and I really believe there was not a loose stone to make a horse stumble, 19 miles from *Salisbury*.

Between *Romsey* and *Winchester* the husbandry is, in general, the same as what I last mentioned, but with some variations, which I shall mention. They feed their turnips off with sheep; but not for wheat, but barley; oftentimes, however, they sow them after fetches, which they either feed off with sheep, or mow green for horses; seldom letting them stand for seed or hay. They plough but once for them, and sow three bushels. This is excellent husbandry; a thick crop of them loosening the soil as much as several ploughings. The farms are, in general, small: 200 *l.* they reckon large, and lands lett, on an average, grass and arable, from 7 *s.* to 20 *s.* *per* acre; but generally about 10 *s.* Having mostly a
right

right to commonage, they keep a greater number of sheep than appears to be proportioned to their farms. One of 50*l.* a year, for instance, has 300. Some of the farmers, nearest to *Winchester*, serve the inns with straw, and take their dung in return; and bring coal-ashes from thence; some soap-ashes, for which they give 2*s.* 6*d.* *per* waggon load; which is very cheap. No oxen used; four horses to a plough. Their measure 18 feet to a perch.

LABOUR.

In winter, to hay-time, 1*s.* a day.

Mowing hay, 1*s.* 6*d.* ditto.

Reaping wheat, 5*s.*

Mowing corn, and raking it, 2*s.*

—— Grass, and making into hay in the meadows, 5*s.* Elsewhere 3*s.*

Hoeing turnips, 4*s.* and 4*s.* 6*d.*

A boy of 7 or 8 years old, 3*d.* a day.

PROVISIONS.

Bread, - - 2 $\frac{1}{2}$ *d.* *per* lb,

Butter, - - 6 $\frac{1}{2}$

Mutton, - 4

Veal, - 3 $\frac{1}{2}$

Beef, - 4

Cheese, - - 3

Coals, - - 9 a bushel.

From *Winchester* I turned out of my way purposely to view *Crux Easton*, and the country

country adjoining, that I might be the better able to understand several particulars, which Mr. *Lisle*, in his *Observations on Husbandry*, leaves very doubtful. I wanted to discover, if the soil required 8 and 10 oxen to plough; but, herein, I was, what I may call, practically disappointed, for not a working ox is to be met with for miles around, and very few in the whole country. But they commonly use 3 horses, sometimes 4. White earth, which he so often mentions, is very dry, sound corn-land, very shallow; for the pure chalk is at a few inches of depth, and the surface varies only from it in its dryness. The rent, at a medium, of whole farms there, is 9 s. and 10 s. an acre. I must own, I expected something more *peculiar* than I found; however, my own curiosity was satisfied, though I could not bring from them many particulars worth your reading.

The country around *Winchester*, and to *Aylesford*, and its neighbourhood, is, in general, poor; in the latter, land lets from 5 s. to 10 s. an acre, and grass much higher: their flocks of sheep are considerable, arising to above 1000, and the benefit of folding well known. Particulars of culture and prices, are the same as those I troubled you with last. I should observe, that Mr. *Rodney*, of *Old Aylesford*, has

has tried a small field with lucerne, broadcast, and a piece of another with burnet; the plants of the latter were vigorous, and looked well; but so thin that there was not half a crop; it is a year and a half old; but I could not find that any cattle would eat it. His lucerne was broadcast, except about half a dozen rows, two feet asunder; but as the crop was very thin, and much over-run with weeds, it affords me no conclusions that are the least determinate.

Recollecting a letter in the *Museum Rusticum*, which mentioned the Earl of Northington's having ordered an experiment to be tried on burnet, I determined to view it, though six miles out of my way, in going and returning. I found it about one acre; and was informed, that the soil was light, but rich enough to produce wheat, or any other common grain. It was two years old last spring; sown by itself, and kept clean, and mown once the first year; the second, twice; once for seed, and once for green food; the horses, hogs, and sheep, feed freely on it; and this point, it is imagined at the *Grange*, depends upon not giving it them, when too old and stalky. At present, it is standing for another crop of seed, not having been cut this year; and is really a very fine thick crop,

crop, of great bulk, and has very few weeds in it.

The country between *Aylesford* and *Alton* is pleasant, and well cultivated, but not rich in soil; the land, in general, is light and dry, very healthy, and bears, by means of good tillage and manure, wheat and turnips; two vegetables which delight in opposite soils; but whenever any one yields both, that circumstance is a strong reason for concluding it, what the farmers call, *a kindly soil*. The rent through this tract is in general, 7 s. or 8 s. an acre, grass and arable, one with another.

The farms are, in general, small; 200 l. a year is reckoned a very large one: they run, in general, from 30 l. or 40 l. a year, to 150 l. They cannot be so small as in some counties, because no plough stirs with less than four horses, and a farm of 15 l. or 20 l. could not keep them. Their course of crops is, 1. Fallow. 2. Wheat. 3. Barley. 4. Clover and trefoil, and some ray-grass two years; then round again: or, 1. Turnips. 2. Barley. 3. Grasses, two years. 4. Fallow. 5. Wheat. 6. Barley. They plough three times for wheat, sow three bushels; and reckon two quarters a middling crop. For barley they plough twice, sow four bushels; and reckon two quarters and half the medium. They
very

very seldom give above one earthen for oats; sow four and a half, or five bushels, and reckon three quarters the middling produce. For pease they plough once, sow three or four bushels, according to the size of the pea; and two quarters and a half the medium. Fetches they never sow, except for feeding off with sheep, or cutting green for their horses; they plough but once for them, and sow two bushels. Whenever these crops of oats, pease or fetches, come in, it is, in general, instead of barley. The culture of turnips has within these 12 years increased twenty to one; they plough three or four times for them, hoe them once, and feed them off entirely with sheep. They use also wheel-ploughs, never less than four horses, and do an acre a day. As to the general œconomy of their farms, the following sketch of one, of 160 *l.* a year at *Ripply*, will give you some idea. The farmer, who occupies it, has about 400 acres of land, a considerable part of them grass; keeps 10 or 12 horses, and about eleven score of sheep: employs constantly five servants, one shepherd, one boy, and three labourers.—I forgot to tell you, that many of them manage to have a piece of clover for their hogs, an article of husbandry I have not met with for some time.

LABOUR, &c.

All the year round, 1 s. a day and beer,
or 1 s. 2 d. without. This is excessive
cheap.

Reaping wheat, 4 s. and 4 s. 6 d. *per acre*.

Mowing barley and oats, 1 s. mow and
rake, 1 s. 8 d.

Mowing grafs, 1 s.

Hoeing turnips, 5 s.

Lad of 13 or 14 years old, 4 d. a day.

Ploughing land *per acre*, 8 s.

PROVISIONS.

Bread,	-	-	1 $\frac{1}{2}$ d. <i>per lb.</i>
Butter,	-	-	6 $\frac{1}{2}$ and 7 d.
Candles,	-	-	7
Mutton,	-	-	4 $\frac{1}{2}$
Beef,	-	-	4
Cheese,	-	-	2 d. 2 $\frac{1}{2}$ d. to 4 d.

Labour and provisions in this country
bear no proportion to each other; and the
wretched management of keeping double
the number of horses that are really neces-
sary, is most pernicious in its consequences.

The soil between *Alton* and *Farnham*, is
much richer than the above; letts on an
average from 15 s. to 20 s. an acre. Their
chief crops are wheat, pease, and beans.
They fallow for the first; then sow wheat,
and then spring-corn — others trench
plough for pease, then wheat, then spring-
corn; then lay down with clover and ray-
grafs

grafs for two years. They plough three times for wheat; sow three bushels, and reckon three quarters a medium, often have five. For barley they give two or three earths, sow 4 bushels; and get 4 quarters on a medium. For oats, stir but once, sow 4 bushels; and 4 quarters they reckon a middling crop. When they trench-plough for pease, they don't stir a second time; but when only common tillage, twice; sow $3\frac{1}{2}$ bushels, and reap, on a medium, three quarters. When they sow turnips, they plough thrice, hoe them once, and feed them off entirely with sheep. They use only wheel-ploughs; never less than four horses, and often five or six; which, in stiff lands, do an acre a day, and in light, an acre and a half.

They reckon that 80 acres of arable land require five horses, if light. One farmer, who rents 250 acres of light arable land, keeps nine horses; 120 sheep; three men; three boys; and four or five labourers the year round.

But the most remarkable husbandry, near *Farnham*, is the culture of hops; of which they grow very large quantities, and are a vast improvement; for hop-grounds lett here from 3 *l.* to 9 *l.* an acre, which last price is very great. The labour attending them, they reckon 3 *l.* 10 *s.* an acre *per ann.* The poles cost (according to their length) from 12 *s.* to 22 *s.* a hundred; last four or five

five years, and twenty-six hundred are requisite to an acre. They consider 12 Cwt. a middling crop, and the average price at 6 *l.* or 7 *l.* *per* Cwt. Which circumstances shew the vast improvement of this culture.

Bently-Green, a village between *Alton* and *Farnham*, is worthy your notice, if you travel this road; for it is pretty, chearful, lively, well built, the houses scattered, and all with little gardens, neat and well planted; and I will beg you will take notice of the fences on each side of the road for 10 miles; I never beheld any thing equal to them; the whitethorn hedges are of a most vigorous growth; a great number of them regularly clipt; and the dead hedges, herdle work; three feet, or three feet six inches high; the stakes strong in the ground, and closely interlaced; and whenever you see young quick, there is one on each side of it, and the white-thorn plants kept clean weeded: nor is this husband-like attention to their fences confined to the road-side, but extends on each side into the fields, as far as you can see.—The country is very pleasant; a due mean between a hilly and a flat one; the small risings give a variety, and open to agreeable landscapes; and the number of scattered houses and villages render it lively; particularly as they are so neat.

LABOUR, &c.

All the year round, 1 s. and beer.
 Harvest, a month, at 40 s. victuals and beer.
 Reaping *per* acre, 3 s. 4 s. and 4 s. 6 d.
 Mowing corn, 1 s.
 ——— Grass, 1 s.
 Hoeing turnips, 3 s. 4 s. and 5 s.
 Ploughing, 7 s. and 8 s.

PROVISIONS.

Bread, 1 s. 3 d. the half-peck loaf.
 Butter, $7\frac{1}{2}$ d. *per* lb.
 Mutton, $4\frac{1}{2}$ d.
 Beef, 4 d.
 Cheese, (*Norfolk*) $2\frac{1}{4}$ d. West-country, 4 d.
 Peat for firing, 10 s. the waggon-load.

This place, I think, is near enough to the capital, to warn me of its influence; I shall therefore give you a respite, and conclude with assuring you, how much I am, &c.

Farnham, July 13th, 1767.

L E T T E R VI.

WHAT little I have seen of *Surry*, gives me no great opinion of its fertility: There is much bad land, not far from *Guilford*; and I observed, as I past from *Farnham* thither, that the upper lands were poor. They sow a great deal of sainfoin, which is a great improvement; for it yields two tuns, and two and a half of hay per acre. The country is, however, pleasant; and for some miles before you arrive at *Guilford*, the prospects are very fine.

Between that place and *Ripley*, the soil is better; letts, in general, from 10s. to 15s. and I perceived the crops to be exceeding good. On inquiry, I found their course to be: 1. Fallow. 2. Wheat. 3. Spring-corn. 4. Clover. 5. Wheat. 6. Beans, pease, or oats. This course is in case the soil is in good order; if it runs foul, they favour it rather more; and it must be confessed, that wheat sown on a clover lay, which succeeds two crops of corn, is presuming too far on accidents, and the strength of the land's fertility. They plough for wheat three or four times; sow two bushels and an half, and reckon three quarters a middling crop. For barley,

ley, they plough but once in their light lands, twice in those which are heavier; the quantity three and a half, or four bushels; and the mean produce four quarters. For oats they plough but once, sow four or five bushels; which yield, on a medium, four or five quarters. When beans are the crop, they likewise plough but once; and dibble in three bushels to the acre; hoe them always once, and if they are foul, twice. For pease, one earth; sow three bushels, generally in drills, 14 or 15 inches asunder, with a small plough, made on purpose; always hoe them once or twice, and have generally, on a medium, four quarters on an acre: they sow a great many turnips; plough twice or thrice for them, hoe them twice; and generally feed them off with sheep, but sometimes stall-feed bullocks with them; in which case, they reckon that an acre of good ones will fatten two middling sized beasts.

In tillage they use both horses and oxen; four horses to a plough, and sometimes more; and four, six, and eight oxen, and in their light lands do an acre and half a day, but in the stiffer soils, only an acre. The oxen are reckoned the most profitable by the most sensible people I talked with, but the horses kept, are, nevertheless, ten to one. They keep a great many cows in this country, and reckon the profit of one

at 4 *l*. One farm I was particular in my inquiries after, by accidentally meeting with a person concerned in it;

The rent 200 <i>l</i> .	30 cows.
300 acres.	9 fatting beasts.
240 of which arable	4 servants.
12 horses.	2 boys.
8 oxen.	10 labourers.--The
300 sheep, (right of commonage)	number of working hands very great.

LABOUR.

In winter, 1 *s*. 2 *d*. a day.

In spring, 1 *s*. 4 *d*.

In harvest, 2 *s*. and 2 *s*. 6 *d*.

Reaping wheat, from 5 *s*. to 9 *s*. an acre.

Mowing corn, from 1 *s*. 2 *d*. to 1 *s*. 6 *d*.

Mowing grafs, 2 *s*. and 2 *s*. 6 *d*.

Hoeing turnips, 5 *s*.; second time, 4 *s*.

—— Beans, 3 *s*. and 4 *s*.

—— Drilled pease, 3 *s*. and 4 *s*.

Boy of 10 or 12 years old, *per* day, 4 *d*. to 6 *d*.

Ploughing, *per* acre, 5 *s*. and 6 *s*.

PROVISIONS.

Butter, - - 7 *d*. *per* lb.

Mutton, - - 4 $\frac{1}{2}$

Beef, - - 4

Bread, - - 2 *

* *Painsbill*, Mr. *Hamilton*'s ornamented park, at *Cobham*, is exceedingly worth your attention; it gave me no inconsiderable pleasure; and you will,

From *Cobham* almost to *Westminster* bridge, the soil is sand, naturally poor, but near *London* greatly enriched with manure. I observed, however, in the sandy fields, about *Essex* and *Kingston*, that the crops were exceeding good, which the farmers attributed to the wetness of the season, and I believe with reason. There appeared nothing in the husbandry, much worthy of remark; their course is, 1. Fallow. 2. Wheat. 3. Spring-corn, or clover.

will, doubtless, excuse my dwelling for a few minutes on the principal circumstances which are most striking.

Passing from the house, and a few winding shrubberies, which are parted from the park by net-work, and in which the green-house is situated; we were conducted through the park to another inclosed plantation, which has an agreeable walk, commanding a pretty valley, thro' a winding row of fir-trees, and at the summit of a bank, which is planted with vines; the produce of which, last vintage, was three half hogshheads of wine. This walk leads to the Gothic temple; an open building, which looks immediately upon a large piece of water, with a handsome bridge thrown over an arm of it: As the temple is upon a rising ground, and looks down upon the water, the beauty of the scene is greatly increased. In point of lightness, few buildings exceed this temple. From thence we wind through a fresh walk, near another part of the water, cross a bridge, formed, to appear
ance

LABOUR.

In winter, 1 s. 4 d. a day.

In spring, 2 s.

In harvest, 2 s. and 2 s. 6 d. and beer, &c.

PROVISIONS.

Butter,	-	-	7½ d. per lb.
Bread,	-	-	2
Mutton,	-	-	4½
Beef,	-	-	4

ance, of rocks and fossils; and turning down, to the right, find that this bridge is the covering of a most beautiful grotto, as well as the water; for immediately under it, is a large incrustation of fossils; and spar hanging every where like icicles from the cieling, has a most pleasing effect. On each side the water is a small path, parted from the stream by marine fossils: nothing can have a more elegant effect than the ceiling of this grotto, (in which is stuck, with great taste, a profusion of spar) hanging over the water, as if of a kindred, but congealed nature. From this grotto, the walk leads on the side of the water, to a ruined arch, in a just taste: the tessalated pavement; the mosaic ceiling; and the basso and alto relievo's, which are let into the wall, are all in decay; the symptoms of which are excellently imitated; with weeds growing from the ruined parts, and all the other marks of antiquity. Through the arch, the river appears winding in a proper manner; that is, dark and gloomy, around a rough piece of grass, which has a consistent appearance. But what hurt me was the contra-

At *Clapham* I had the satisfaction of viewing the experimental agriculture of Mr. *Baldwin*. I had read his letter to Dr. *Templeman*, describing his field of Burnet, and had much curiosity to see it; but, to my no small disappointment, found he had ploughed it up the week before. From the contents of that letter, I was much surprized at finding this; because, Mr. B— speaks of it as an excellent plant. I should,

diction of emotions, raised by the scene behind, which was totally different from that of the ruin; elegant and agreeable: a smooth water, and sloping banks, closely shaven, with a little island in it, are all *agreeable* objects; and by no means affect the spectator in unison with the ruin of *Grecian* architecture, and the gloomy objects around.

The cascade, which is the next object that appears, though trifling, is in a very just taste. The water gushes in five or six streams, out of tufts of weeds, growing in the rock; over it bends the trunk of an old oak, from side to side, which has an exceeding good effect; and the trees rising to a great height above all, finish the scene completely. This cascade is fed by a wheel, that lifts the water from the river, which falling in the cascade, keeps up the lake already mentioned. From hence we proceeded thro' a piece of wild ground, overrun with fern and rubbish, through a scoop or hollow, bounded by high firs on each side; and in which the tower (another ornamental building)

however, remark, that the reason of leaving it no longer, was the want of sheep to pasture it; it not suiting M. *Baldwin* to keep flock enough to feed it.

Three acres of Lucerne, of this gentleman's, made me amends; about two acres are drilled in rows, two feet asunder, and the third transplanted at the same distance. It is two years old; I found it two feet two inches high, thick and fine, and had

building) appears with a very pleasing effect, to other darker walks, quite closed, which lead to the hermitage; we entered into a small room, nearly dark; and on the opening a door out of it, into the hermit's parlour the windows at once present a very beautiful scene; for you look down upon the river, winding round some cultivated fields, with a very good prospect bounding the whole. But I would observe, that this landscape, being of nearly the same nature with many of those at *Persfield*, figured poorly on comparison; for the depth of the descent is not near equal to those vast ones of Mr. *Morris's*, which circumstance takes greatly from the picturesque appearance: and the river is too narrow, and not seen distinctly enough; the wood which grows on its banks, and the beaks under the hermitage window, almost hide it: nor are the fields overlooked so distinct and beautiful, as those in the valley at *Persfield*; but notwithstanding this comparison, the view will appear exceedingly beautiful, to those who never saw *Persfield*,
and

been cut once before this year ; used chiefly for the foiling horses, and for feeding four cows. The soil is a sandy loam, of a dark colour, appeared to me admirable turnip-land, and if deep enough, would bear fine carrots; yields good barley, as appears by a piece in the same field adjoining: The drilled equal to the transplanted; but then it should be remembered, that the Rev. Mr. *Harte*, the famous director of the transplanting method, orders the plants to be set at the distance of three feet four inches, for the benefit of effectual ploughing between the rows. Besides Lucerne, Mr. *Baldwin* has some experiments in small, on timothy, bird-grass, &c. The former is coarse, thin, and poor, a worthless plant;

and pretty to those who have ; the coming upon it, by suddenly opening the door between the hermit's rooms, is contrived with the utmost taste.

The tower is the next building : from it is seen a very fine prospect ; St. *Paul's* cathedral and *Windsor* castle, being two among many other objects ; but the temple of *Bacchus*, which we came to next, is infinitely beyond it. It consists of one handsome room elegantly stuccoed, with a portico of Corinthian pillars, in a light and beautiful taste : In niches, under the portico, are four copies in plaister, from celebrated statues ; the *Venus de Medicis*, and *Venus* with fine haunches, making two, and both good.

Around

his bird-grafs is very thick and very fine ; his silver hair-grafs the fame, but not fo delicate ; and another very thick one, which I apprehend is the fine-bent, the fame. For the clearing of crops, fown in rows, Mr. *Baldwin* has invented a ploughing harrow ; which I faw in the Lucerne-field, and took a draught of. See Fig. II. The chief ufe of it, is for *loofening* the intervals, not *cleaning* them. I cannot omit mentioning the extreme politenefs, with which this gentleman (who is exceedingly zealous for the good of agriculture) receives all, who make any inquiries concerning his manner of cultivating the plants I have mentioned.

Since

Around the room, are antique *Roman* ftatues, on pedestals, and in the middle a coloffal one, of *Bacchus*. From hence another winding walk leads you out of the park.

On the whole, Mr. *Hamilton's*, though by no means equal in *the sublime* to the amazing objects at *Persfield*, yet is certainly a very beautiful place, and particularly complete, in refpect of buildings, in which the other is deficient ; nor does *Persfield*, in point of beauty of water, by any means equal it : In a word, *Cobham* is the range of *beauty* ; but *Persfield*, that of the *sublime*. The latter is as much wanting in lively and agreeable buildings, as the former in the great, and unornamented touches of nature.

Since the taking the minutes of this tour, I have received two letters from this very able cultivator concerning the above experiments; in the last of which, Mr. *Baldwin* is so obliging as to allow me to publish such parts of both as relate to agriculture.— In the first, he is pleased to write as follows:

“ The field of Lucerne, which I am much pleased to find met with the approbation of a gentleman of your knowledge in agriculture, contains about $4\frac{1}{2}$ acres, the

form of it, if you remember, is this

c	
b	d

that part of it marked (d), contains two acres of Lucerne, transplanted in *September* 1764; that part marked (b), containing an acre, was drilled by hand the 2d of *May* 1765, so that you find this to be the third year of both. The transplanted was first hoed in *November* 1764, and cost 6 s. *per* acre; the price we pay here for one hoeing of turnips; it was hoed again in *April* following, and cost 10 s. an acre. The weeding *by hand* the drilled acre, sown as above, the 2d of *May*, cost the middle of *June* following, 12 s. *per* acre; the produce of both these pieces in 1765, was very trifling, though I must remind you that it was a very dry summer. In 1766, I began to cut it, the 28th of *April*, when it served my horses and cows six weeks, *i. e.* to the
7th

7th of *June*: on the 7th of *July*, I cut the whole three acres for hay; it produced about three loads; and about three loads more on the 15th of *August* following. The fourth crop, which was pretty good, I fed off with my cows and some sheep. This year I began to cut it on the 11th of *May*, and fed five horses (and four cows occasionally) till the 20th of *June*, six weeks; when I mowed the remainder, being about an acre, and it yielded $1\frac{1}{2}$ load of hay. But determinations by the eye, as to quantity, being very uncertain, I weighed mine at different periods, and found on the 30th of *May*, one rod of drilled lucerne weighed 95 *lb.* On the 9th of *June*, one rod of transplanted weighed 80 *lb.* and on the 20th of the said month, a rod of the same weighed 120 *lb.* On the same day I prevailed on a neighbouring gentleman to weigh a rod of broad-cast Lucerne, the weight of which, with some grafs and weeds, was 138 *lb.*

But to come yet nearer to the point, which I observe you are, as I was, very anxious to know, I mean the real produce of an acre of Lucerne, I have now the satisfaction of informing you, that some of the gentlemen and jobbing coachmen in my neighbourhood being desirous of soiling their horses with Lucerne, I readily agreed to do it for them at the same price they gave

gave for tares, that is, 7 *d.* *per* bundle of 60 *lb.* or 6 *s.* a week a horse; from hence I was much pleased with discovering that one rod with another, the second crop yielded from 60 to 64 *lb.* that a large coach-horse would eat about 90 *lb.* in 24 hours, and that an acre would serve five horses 21 days; this comes at once to your point of enquiry of the number of weeks and number of horses an acre of Lucerne will maintain; it also shows you that my method of culture is superior to yours, since five horses will eat an acre of yours, you say in 9 days; indeed I have long been of opinion that 3 feet 4 inches, the distance yours is in the rows, notwithstanding the great authorities you have for it, is by no means *necessary* for the plant, or *beneficial* to the cultivator. Cleaning Lucerne in rows by hand-hoeing is much too expensive, I could not bear it, and was therefore never at rest till I had invented an instrument that would do it as well or better; last *October* I was happy in succeeding in this important point; I call it a horse-hoe, (See Fig. II.) with this instrument I cleaned my field very well the latter end of *October* last in two days with one man, a horse, and boy to lead it; so that this heavy expence I have now reduced to 1 *s.* 6 *d.* or 2 *s.* an acre. Soon after the field was thus cleaned, I began to think it would be

be a great acquisition if I could invent an instrument that would work deep in the narrow space between the rows, as a hoeing plough; accordingly I went to work again, and succeeded to my wish; with this, on the 17th of last *November*, I hoe-ploughed my three acres of Lucerne five or six inches deep, after which, as well as the former operation of horse-hoeing, I harrowed the field across with common harrows, and carted off near 8 loads of weeds; thus it lay till I began to cut it the 11th of *May* last, after which, as we went on, once a week, we horse-hoed; this I also repeated after the second cutting, and the third crop, which is now very clean, and is 10 inches high. Thus I have the vanity to think I have brought the culture of Lucerne to a very pure and profitable method, and greatly reduced the expence of cultivating it.

Drawing the drills, sowing the seed by hand, and covering it by two little boys at 3*d.* a day, and two men at 20*d.* cost me for drilling an acre of Lucerne, about 10*s.* Raising the plants, ploughing and planting the transplanted Lucerne, cost me about 50*s.* an acre.

The observations you made on my barley (c), as being under-seeded, leads me to acquaint you with the experiment going forward there: As I had observed that
Lucerne

Lucerne the first year yielded but little, I was desirous of removing that objection; accordingly, that piece of about $1\frac{1}{2}$ acre was sown with three bushels of barley the 30th of *March* last, and the 8th, 9th, and 10th of *April*, it was drilled with Lucerne, the lines being a continuation of those in (b); as I want to bring the whole field into Lucerne, and (c) was formerly a little separate field, the bank I therefore pulled down last year to make it one field; if I succeed, you may avail yourself of my method.

In regard to the quantity of seed-corn most proper for an acre, much may, and is said on both sides. If I had had the pleasure of being with you, I should have shewn you a four acre field of oats adjoining to the Lucerne, which the farmers in general lay at five, and some at six quarters, yet only ten bushels were sown. Dung is very dear in my neighbourhood, and I dressed this field with lime, which being unknown as a manure about me, diverted the farmers, but now they see I was right. The reason of my sowing thin here, was on account of the Lucerne to be sown upon it, but from the rankness of the crop of oats, I am fearful of my success. I have a 13 acre field of oats that would have afforded you much entertainment, too much indeed from the various experiments in it for me to mention here.

here. — In regard to natural grasses, I begin to think our forefathers were happy in discovering ray-grass: Timothy is very coarse; and bird-grass is nothing.

If your business or pleasure bring you this way again, I hope you will favour me with more of your company, for I am always happy when I can be of service to any gentleman in matters of this sort.

I remain, Sir,

Your most obedient,
humble servant,

Clapham Common,
July 30, 1767.

CHRIST. BALDWIN.

In his second letter, this excellent cultivator expressed himself as follows:

—“ You desire me to give you some information concerning the Progress of my Lucerne, and that I would consent to your publishing an extract from the letter I wrote you last year in answer to your enquiries after it.

In regard to my field of Lucerne, I must inform you that it continues in a flourishing state, and that I use no other instruments in cleaning it than my horse-hoe, and hoe-plough: I don't think that this has been a favourable season for the growth of Lucerne, but the frequent rains have been very serviceable to it on my gravelly soil, yet the cold winds have seemed to blight it; however, on the 3d of last

Q

month,

month, a rod of drilled weighed 108 lb. and on the 8th, a rod of transplanted weighed 102, and yesterday a rod of drilled, cut the second time, weighed 64 lb.

My horses, though in constant work, have lived upon it entirely, and they are not only in perfect good order, but in high spirits.

If you think what I have now told you, or what I said in my former letter, will be of any service to the publick, you are quite welcome to insert it, as you desire, in your *Six Weeks Tour*; for nothing gives me greater pleasure than being serviceable to my country, in the cause of agriculture.

I have just sown some turnips, am ploughing for more, and in order to avoid the fly, I sow to every quart of turnip-feed, a pint of raddish-feed. This method I am advised to by a friend, who says the excellence of it has lately been discovered by accident: it seems the raddish comes up before the turnips, and that the fly will not touch a turnip while a raddish remains. I think you'll be pleased with this hint.

I hope, when your business brings you to town, you'll do me the favour to spend a day with me at *Clapham Common*.

I am, Sir,

Your most obedient,
humble servant,

15th July, 1768.

CHR^r. BALDWIN.

The first remark which will certainly be made by every one on reading these letters, is the truly patriotic spirit of this very ingenious husbandman, who not only employs his leisure in a manner serviceable to the interests of the community, but so readily consents to the publication of these minutes, with the same excellent design. From the above-inserted register, it is evident that Mr. *Baldwin* has carried the culture of Lucerne to very great perfection; an acre lasting 5 horses three weeks, is, at the rate of keeping $2\frac{1}{2}$ six weeks, which, at 6 s. *per* horse, *per* week, amounts to 4 l. 10 s. each cutting; and if we suppose the 11th of *May*, the mean time of the first cutting, there will, to the end of *September*, be four cuttings or 18 l. *per* acre. I apprehend a fourth of this sum may be deducted for the expence of carrying the Lucerne to the stables of the owners of the horses, with the attendant charges, after which there remains 13 l. 10 s. From this sum, if we deduct the expences of culture, &c. the remainder will be neat produce.

Let us calculate rent at 1 l. 10 s. one cleaning to each cutting, at 2 s. which makes 8 s. Four cuttings at 2 s. 6 d. or 10 s. One annual hand-weeding, and cleaning the rows, which neither horse-hoe nor hoe-plough can effect; this cannot be less than 10 s. These expences amount

to 2 *l.* 18 *s.* which, deducted from 13 *l.* 10 *s.* there remains 10 *l.* 12 *s.* clear profit. This calculation may not be exact, but I apprehend, from the tenour of the preceding letters, that it is not far from the truth: However, it proves sufficiently, that Lucerne thus managed is an object of very great importance. Where the price of soiling is not so great as 6 *s.* *per* week, the proportion may be calculated by any one.

The particulars inserted above are not explicit in the comparison: the transplanted Lucerne seems to excel the drilled, which is not to be wondered at, as the plants enjoy in that method, a greater space and freer air, and are also much easier cleaned; the superior weight of one cutting of broad-cast should not be taken as a proof of general superiority, for it probably was not cut so often as either the transplanted or the drilled: I am a little surprised, however, that the product of the last year was not equal to the preceding, for Lucerne generally improves to the age of five years. But it should be remarked, by any husbandman who is induced to attempt the culture of Lucerne from Mr. *Baldwin's* success, that the expences will run much higher if the above mentioned instruments are not used, as the difference between them and hand-work is very material.

LABOUR.

In winter, 1 s. 6 d. a day.

In summer, from 20 d. to 2 s. without beer.

Reaping corn, 6 s. to 7 s. *per* acre.

Mowing ditto, 1 s. 6 d. to 2 s.

——— Grass, 3 s. *

From *Wanstead*, I took the direct road to *Ilford*; which afforded me a pleasure superior to that, which any palace could

* In my way back to the great *Essex* road, I stopped, and viewed *Wanstead* house, the seat of the Earl *Tilney*, which is a very magnificent palace. It is built of *Portland* stone, with a grand portico in the center, supported by large Corinthian pillars; under which is the landing-place, from a double stone stair-case, which leads to the grand hall. This room is 53 feet long, by 45 broad; the ornaments consist chiefly of two large antique statues, on marble pedestals, *Livia* and *Domitian*; and three large pictures by *Casali*, *Coriolanus*, *Porfenna*, and *Pompey* taking leave of his family. These pieces are not in that master's best manner; the colours are too tawdry; nor is the beauty and delicacy of the female figures equal to many I have seen by that painter. The door cases of this room are plain, but little carved, though in a good stile. The chimney-piece heavy.

From the hall, we were conducted to the left, into a dining-room of 27 feet square; out of that into a drawing room of the same dimensions; from that into a bed-chamber of 24 by 20, and

confer; for I found there a husbandry more perfect (that is profitable) than any I ever met with; the particulars of it are worthy of your attention.

The farms are neither very large nor small; 200 *l.* a year is reckoned a large one, and the land letts, at a medium, at 1 *l.* 10 *s.* *per* acre. The course of crops most common is, 1. Fallow. 2. Wheat. 3. Oats. 4. Turnips. 5. Barley. 6.

through that into two light closets: these rooms form the front line to the left of the hall. There is nothing remarkable in their furniture; but I observed, among other modern pictures, that of a *Turkish* lady, which pleased me. You will excuse me giving you my little criticisms; I am no connoisseur in paintings, and may be so gothic as to praise a piece by a modern artist, when an antient one is near it.

The suite of apartments to the right of the hall, consists of, 1st, A dining-room, 25 square; then a drawing-room, 30 by 25. The chimney-piece in this room is elegant; it has a tablet of an eagle taking up a snake, in white marble. The next is a bed-chamber, 25 by 22; and out of that we entered the ball-room, which runs the whole breadth of the house, and connects the front line of apartments with the back suite. This room is 75 by 27; very elegantly fitted up with gilded ornaments of all kinds. But I should remark, that the gilding being all on brown, is by no means set off with such lustre, as if on lighter colours.

Clover and ray-grass. 7. Potatoes. Their potatoe-husbandry is admirable; they dig in the clover (and natural grass, when they break it up the same) about *February*, and immediately dibble in potatoe setts, four inches deep, and from eight to ten inches square. Before they come up, they hoe the ground perfectly clean; and after they appear, twice more. They dig them up with a three pronged fork, and gene-

From the ball-room, turning to the back suite, we entered another state bed-chamber, 27 by 22. From that into a dressing-room, 27 by 25; then into an antichamber, 40 by 27; the chimney-piece white marble and elegant. Next came the saloon, 30 square; then another dining-room 40 by 27, ornamented with three large pictures, by *Casali*: *Alexander* directing *Apelles* to paint *Campaspe*, who is sitting naked in a chair, is beautiful, the naked well coloured, and the whole figure enticing; but there is a strange swelling in her thigh. The next piece is the Continnence of *Scipio*, a poor one; the lady is by no means tempting, nor has *Scipio* any thing characteristick in his countenance. *Sophonisba* taking poison, is the third; she is an insipid figure, and takes the poison as she would pluck a rose; but without any of that noble heroism of soul, which speaks a contempt of the fear of death. The colours in all these pieces are too glaring. From this room we entered a drawing one, 27 square; then another bed-chamber, 27 by 21; very elegant, hung with crimson velvet;

rally before they are half grown. I saw them taking up several crops; the reason of this earliness is the great price potatoes bear in the summer. The profit is exceeding great. The landlord of the *Red-Lion* at *Ilford*, sold three roods standing without any expence of taking up, the day I was there (*July* the 13th) for 9*l.* And some *Irishmen* who had hired about two acres of ley-land, of Mr. *Johnston*, the brick-merchant, took up 40 sacks *per* acre; which amounts to above 20*l.* *per* acre. The crop I viewed; it was dibbled promiscuously. These *Irishmen* hired the land at 4*l.* an acre. It was once very common to have all the potatoe-grounds belonging to them, but of late the farmers have got pretty much into the culture themselves.

velvet; bed the same, and lined with an *Indian* sattin, white, trailed with coloured flowers. Lastly, a dressing-room, 26 by 18; ornaments richly gilt. The suite of rooms on either side, is, in the whole, 260 feet.

Under the hall is a very noble arcade; out of which is a common dining-parlour, 40 by 35; out of which we entered a breakfast-room, 30 by 25: fitted up with prints pasted on a pale yellow coloured paper, with engraved borders; and all disposed in a manner which displays great taste. The prints are of the very best masters, and the ornaments elegant.

Wanstead, upon the whole, is one of the noblest houses in *England*. The magnificence of having
four

Mr. *Johnston*, abovementioned, at the time that he lett the ley to some *Irish* labourers, offered them at the same price, the surface of a very large quantity of mud, thrown out of a canal in his garden, but they refused it : upon which he directed them to plant it on his own account ; and to their surprize, it turned out by much the best crop of the two. They reckon 2 tun a middling summer crop. Sometimes they only plough for them, and dibble in rows at 2 feet or 18 inches, and 9 inches or a foot, from plant to plant. They prepare common arable fields by several ploughings, after a common manuring of dung. But to return to the general husbandry around *Ilford*.

For wheat they plough four times, sow two bushels ; and reckon $3\frac{1}{2}$ quarters a middling crop. They give three or four earths for barley, sow three bushels ; and 5 quarters a middling crop. They plough
thrice

four state bed-chambers, with complete apartments to them ; and the ball-room are superior to any thing of the kind in *Houghton*, *Holkam*, *Blenheim*, or *Wilton* : But each of those houses are superior to this in other particulars ; and to form a complete palace, something must be taken from all. In respect of elegance of architecture, *Wanstead* is second to *Holkam*. What a building would it be, were the wings added according to the first design.

thrice for oats, which is extraordinary, sow four bushels; and 6 quarters they reckon a medium. For turnips, they stir four times, sow before midsummer, and feed off with cows and sheep; always hoe twice, sometimes thrice. They plough only with horses, two to a plough, and do an acre a day. As to the general œconomy of their farms, take the following sketch of one I met with. Rent 200 *l.* acres 200, nearly all arable. Ten horses; suckled 200 sheep, and kept two men and two boys, and six labourers all the year. They feed their hogs in summer on clover.

LABOUR.

In winter, 1 *s.* 4 *d.* a day, and small beer.

In hay-time, 1 *s.* 6 *d.* and beer.

Reaping wheat, 5 *s.* an acre.

Mowing spring-corn, from 1 *s.* 6 *d.* to 2 *s.*

Hoeing turnips, 5 *s.* for twice.

Digging land for potatoes, 2 $\frac{1}{2}$ *d.* 3 *d.* and 3 $\frac{1}{2}$ *d.* *per* rod.

PROVISIONS.

Bread,	-	-	1 $\frac{3}{4}$ <i>d.</i> <i>per</i> lb,
Mutton,	-	-	4 $\frac{1}{2}$ and 5 <i>d.</i>
Beef,	-	-	4
Veal,	-	-	5
Candles,	-	-	7 $\frac{1}{2}$
Coals,	-	-	11 <i>per</i> bushel.

I should have told you, that the landlord of the *Red-Lion*, was this year offered

7 *l.*

7/. for an acre of garden pease, drilled in rows, three feet asunder, to be taken off in time for turnips; but refused it.

My inquiring after the agriculture of the neighbourhood, brought me acquainted with the improvements of Mr. *Johnston*, above-mentioned. They consist of experiments on Lucerne and Burnet. Four years ago last spring, he marked out three acres of land; the soil a hot gravel to some depth, as appears by a large gravel-pit adjoining. One acre he sowed with Lucerne broadcast; another with the same, over barley, broad-cast: the third he divided into three parts, and drilled them at two feet, two feet six inches, and three feet distance. On the corn acre he sowed five pecks, which yielded him 45 bushels; an increase very surprising. Mr. *Johnston* assured me of the accuracy of this account, as he saw the barley measured himself.

The general result of this experiment hitherto is, that the drilled Lucerne is always earlier than the broad-cast; but not so much as to arise to one cutting in the whole year, the latter being cut as often as the former. In respect of quantity there is no comparison; the broadcast yielding nearly double to the drills, consequently Mr. *Johnston* gives it the preference; nor can he yet determine how long it will last in the ground. The acre which was sown
without

without corn, cost him near two guineas to clean ; but after the first year he weeded all the broad-cast piece, with an harrow of his own contrivance. See Fig. III.

The teeth of this harrow, by means of pressing it down by the handles, cut deep, and tear up all the weeds : the pieces of which it is composed, are stout and heavy.

Another purpose, for which the inventor found it admirably useful, is, the tearing up the couch-grass from out of the fallows. The drilled acre of Lucerne was kept clean the first year, with hand-hoes alone ; but since it has been cleared with a horse-hoe, likewise of Mr. *Johnston's* invention ; the thought of which, he seems to have taken from *M. du Chateauvieux's* double cultivator. See Fig. IV.

This hoe seems broken off before, because it goes on to the carriage of the plough when used. The two feet drills of Lucerne yielded something more than the others. The broad-cast piece, when I viewed it, was, 12, 16, and 18 inches high, and had been cut twice ; the drills were just cut the third time. Last year, the whole three acres, fed eight horses, from the 2d of *May* to the end of *September* : they eat, besides, an acre of tares ; but as a part of the Lucerne was set aside for cutting into chaff, Mr. *Johnston* calculates, that the three acres, in effect, maintained them during them that time.

The burnet experiments consist of one rood, drilled two feet asunder, and sowed last *August* twelvemonth : and one acre sown in drills, three feet, last *August* ; they were both standing for seed, not having been cut this year ; both very fine crops, but the latter remarkably so. Last year he fed cows and horses with the produce of the rood ; both of which eat it very freely, and even with greediness.

These grasses, upon the whole, are found a very great improvement upon this dry gravelly land ; which, however, has such a degree of richness in it, as to be worth 30 s. an acre.

The land continues very good from *Ilford* quite to *Chelmsford*, around *Burntwood*, which is 18 miles from *London* ; it lets, in general, at 20 s. an acre. But the potatoe culture is entirely done with, in three or four miles this side of *Ilford* ; although the soil is as good at a greater distance, and *London* near enough for the bringing any kind of manures. So profitable as the growth of this root is, I was surprized to find the cultivation of it extend no further. Between *Ingateston* and *Chelmsford*, the value of land declines : it lets around that country at a moderate price, considering the distance from *London* ; from 7 s. to 1 l. per acre : the farms are not over-grown ones, from 20 l. and 30 l. to 2 or 300 l.

Their

Their course of crops most common is,

1. Fallow.
2. Wheat.
3. Oats or pease, if the former, then,
4. Clover and ray-grass, for one or two years; but if pease, then fallow again, or turnips. They plough three times for wheat, sow two bushels; and reckon a middling crop at two quarters and an half. For oats, they plough but once, sow four bushels; and reckon three quarters the medium. Sometimes they sow beans, for which they give but one stirring, sow two bushels, hoe twice, and reap three quarters on a medium. They plough twice or thrice for pease; sow two bushels, hoe them once or twice; and three quarters they reckon their mean crop. For turnips, they stir four times, and make the soil garden fine; hoe them twice, and use them in the feeding all kinds of cattle.

Something of the general management of their farms will be seen from the following particulars of one. The rent 100 *l.* a year; for which the farmer has something above 250 acres; the greatest part of which is arable land. He keeps eight horses, 50 or 60 sheep, and 20 cows; and employs three or four men, and two boys, as yearly servants, besides three labourers. They reckon the profit of a cow at 3 *l.* 10 *s.* to lett it. They have but little notion of feeding hogs on clover.

One

One circumstance I should not forget, and that is, their hollow drains, of which they do a great deal in their wet lands, and this excellent practice I found scarce any where but in *Essex* and *Suffolk*. They dig them 22 inches deep, and fill up with wood and straw; the price 2 *d.* and 2 $\frac{1}{2}$ *d.* per rod.

LABOUR, &c.

In winter, 1 *s.* 2 *d.* a day.

In hay-time, 1 *s.* 4 *d.* and beer, and 1 *s.* 6 *d.*

In harvest, 1 *s.* 6 *d.* board and beer.

Reaping, 5 *s.* per acre.

Mowing corn, 1 *s.* and 1 *s.* 2 *d.*

—— Grass, 2 *s.* and 2 *s.* 6 *d.* and beer.

Hoeing turnips, first time, 4 *s.* second, 2 *s.*

—— Beans and pease, 7 *s.* twice.

Ploughing, per acre, 4 *s.*

PROVISIONS, &c.

Bread, rather more than 1 $\frac{1}{2}$ *d.* per lb.

Butter, 8 $\frac{1}{2}$ *d.* Salt 7 *d.*

Candles, 7 $\frac{1}{2}$ *d.*

Mutton, 4 $\frac{1}{4}$ *d.*

Beef, 4 *d.*

Veal, 4 $\frac{1}{2}$ *d.*

Coals at *Maldon*, 24 *s.* per Chalder.

Cheese, 4 *d.* ordinary sort, 3 $\frac{1}{2}$ *d.*

IMPLEMENTS.

New waggon, 25 *l.*

—— Cart, 12 *l.*

Plough, 1 *l.* 10 *s.*

Harrows, 2 *l.* 5 *s.*

I for-

I forgot to tell you they use but two horses in a plough, and do an acre a day.

I asked a little farmer, in this neighbourhood, What was the employment of the labourers wives and children? *Drinking tea*, he replied; and I cannot but remark, that I found the custom almost universal.

* * *

Now being arrived at *Chelmsford*, and the conclusion of my journey, through a country already described; you must allow me here, to finish this Letter, and my Tour. In my next I shall make some remarks on the substance of the preceding minutes, and draw forth such practical deductions, as will, I flatter myself, prove this little journey to be, at least, not totally useless.

I remain, &c.

Chelmsford,
July 17th, 1767.

N. B. I found upon a journey I took from this place to *Bury*, that the road to *Heddingham* is excessive bad; and from *Sudbury*, to within three miles of *Bury*, still worse. Their method of mending in the last mentioned road, I found very absurd; for in nine parts out of ten of it, the sides are higher than the middle, and the gravel they bring

bring in, is nothing but a yellow loam, with a few stones in it; through which, the wheels of a light chaise cut as easily as in sand, with the addition of such floods of watery mud, as render this road, on the whole, inferior to nothing but an unmended *Welch* lane.

Chelmsford,
July 23d, 1767.

R

LETTER VII.

I SHALL here, Sir, endeavour to make good my promise, of drawing some conclusions from the variety of preceding minutes; and aim, at least, at shewing you the use attending a knowledge of the agriculture, and rural oeconomics of our own country, acquired on the spot. I flatter myself, that my arduous inquiries will not prove entirely trivial or useless, but will exhibit some local peculiarities in practical husbandry, which ought to become more general; and by comparing every where the prices of labour and provision, see if a balance can possibly be discovered.

Without further introduction, I shall begin with the crops, which in some places are so much superior to others; and examine what reasons are apparently the cause; at the same time remarking if there is a general balance between the rent and the produce.

In the improved lands in *Norfolk*, I found the mean produce

				Quarters.
Of Wheat,	-	-	-	4
Of Barley,	-	-	-	5
Rent,	-	-	5 s.	
	2			

On an improved farm at *Tostock*, near *Bury*, in *Suffolk*:

Quarters.

Wheat,	-	-	4½
Barley,	-	-	5½
Rent,	-	14s.	

Another: Barley and Oats,

Wheat,	-	-	8
Rent,	-	16s.	4½

About *Bury*:

Wheat,	-	-	2½
Barley,	-	-	3½
Oats,	-	-	4
Rent,	-	12s.	

Around *Hedingham*:

Wheat,	-	-	3½
Barley,	-	-	4½
Oats,	-	-	5
Rent,	-	12s. 6d.	

Between *Hedingham* and *Braintree*, at *Samford*.

Wheat,	-	-	3
Barley,	-	-	5½
Oats,	-	-	4
Rent,	-	14s.	

Ditto, *Saling*.

Barley,	-	-	7
Rent,	-	20s.	

Braintree to *Chelmsford*:

Wheat,	-	-	3
Barley,	-	-	3
Oats,	-	-	3

Between *Dartford* and *Shooter's-hill*:

Wheat,	-	-	6½
Barley,	-	-	6½
Rent,	-	20s.	

R 2

About Stoken Church, in Oxfordshire :

			Quarters.
Barley,	-	-	5
Rent,	-	10s.	
<i>Turville :</i>			
Wheat,	-	-	2½
Barley,	-	-	4
Oats,	-	-	4½
Rent,	-	9s.	

About Cotswold-hills :

Wheat,	-	-	3
Barley,	-	-	3
Rent,	-	5s. 6d.	

About Lanvachers :

Wheat,	-	-	2¼
Barley,	-	-	2¼
Oats,	-	-	2¼

About Bridgend :

Wheat,	-	-	3½
Barley,	-	-	3¼
Beans,	-	-	2

Salisbury Plain :

Wheat,	-	-	2½
Barley,	-	-	3
Oats,	-	-	5

Salisbury to Romsey :

Wheat,	-	-	3
Barley,	-	-	3¼
Oats,	-	-	4½

Alresford to Alton :

Wheat,	-	-	2
Barley,	-	-	2½
Oats,	-	-	3

Alton to Farnham :

Quarters.

Wheat,	-	-	3
Barley,	-	-	4
Oats,	-	-	4

Between Guilford and Ripley :

Wheat,	-	-	3
Barley,	-	-	4
Oats,	-	-	4½
Rent,	-	-	12 s. 6 d.

About Ilford in Essex :

Oats,	-	-	6
Wheat,	-	-	4
Barley,	-	-	5
Rent,	-	-	30 s.

Ingatstone to Chelmsford :

Wheat,	-	-	2½
Oats,	-	-	3

About Newport :

Wheat,	-	-	2
Barley,	-	-	2
Oats,	-	-	2

From this flight sketch it appears that the rent bears no sort of proportion to the produce of the soil, but is guided totally by accident. It is extremely remarkable, that the mean quantity of wheat, on the richest soils, and with the best husbandry, should never exceed 6½ quarters an acre, and that in the neighbourhood of the capital itself. I very much question whether I should ever find a greater produce, if this Tour was extended over

the whole kingdom. If the nature of the broad-cast husbandry would not admit greater crop, I should not be surprized at this; but it is a fact, that $13\frac{1}{2}$ quarters of wheat have been produced by a statute acre of land, in the common method of cultivation: that is, by the broad-cast sowing. The immense deficiency, therefore, of the generality of crops, must be owing to the farmers sowing their ground too often, or to a want of sufficient tillage, or plentiful manuring. There are strong reasons for attributing it to these causes; it is remarkable, that the best produce of all, was off but a *middling* soil at best, the *Kentish* one, but improved by manuring to a great pitch. The next greatest produce of wheat, is from the improved farms of *Suffolk*; a naturally bad soil for that grain, but by means of excellent management, made to yield more than others of twice the rent. The next is about *Ilford* and *Essex*, and the improved lands in *Norfolk*; which are soils very far from being well adapted to this grain, and yet the crops they are made to produce are very considerable. Upon the whole, those soils, which are naturally the worst, but improved by manures, and well cultivated, I have universally found to yield the greatest crops. What a pregnant proof

proof is four quarters growing on the best *Norfolk* sheep-walks !

These facts should give all husbandmen a just idea of the vast importance of proper tillage, cropping, and manures ; that there be always a sufficiency of the first and the last, and never too much of the other. Since very poor soils, and even such as have been reputed barren, are made by these means to exceed the naturally fertile ones in produce.

Natural fertility is consequently of long standing, and the rents of course high, the farmers therefore think they cannot pay their rents if their land be not almost perpetually cropped ; not from a real height in the rent itself, but from the comparison they make with others who pay less. But these, on the contrary, knowing how much more is paid by others, and being impressed from custom, as it were, with an idea, that rent is no great matter, are not induced to pass by the fallow years, or those of rest under grasses : and the same contrast holds with respect to manures ; he who pays a trifle, thinks he can afford to manure for that reason, and those who pay five times as much, are persuaded they cannot therefore venture any expence of that sort ; the consequence of which circumstance is, the former, upon poor land, are more able to pay a great price for a bad
R 4 soil,

soil, than the latter are a small rent for a good one. The richness of the land is not therefore of so much importance to the cultivator, and, of course, to the nation at large, as a lively, vigorous, and judicious culture of it.

The quantities of seed used, is an object that should not be forgotten.

			Q.	B.	P.
Near <i>Bury</i> , —	Barley, <i>per acre</i> ,	—	0	3	2
	Beans,	—	0	2	0
	Oats,	—	0	4	0
	Wheat,	—	0	2	0
	Pease,	—	0	2	0
About <i>Heddingham</i> ,	Wheat,	—	0	2	0
	Barley,	—	0	4	0
	Oats,	—	0	4	0
	Pease,	—	0	2	0
<i>Sampford</i> , —	Wheat,	—	0	2	0
	Barley,	—	0	4	0
	Oats,	—	0	4	0
	Beans,	—	0	2	0
<i>Braintree to Chelmsford</i> , —	Wheat,	—	0	3	2
	Barley,	—	0	3	0
	Beans,	—	0	2	2
	Pease,	—	0	2	2
<i>North-End</i> , —	Wheat,	—	0	2	1
	Barley,	—	0	4	0
	Oats,	—	0	4	0
<i>Lanvachers</i> , —	Wheat,	—	0	2	0
	Barley,	—	0	3	0
	Oats,	—	0	3	2
	Beans,	—	0	4	0
<i>Newport</i> , —	Barley,	—	0	3	0
	Oats,	—	0	2	2
<i>Bridgend</i> , —	Wheat,	—	0	3	0

			Q.	B.	P.	
<i>Salisbury Plain,</i>	—	Wheat,	—	0	3	0
		Barley,	—	0	4	0
		Oats,	—	0	5	0
		Beans, planted,	—	0	2	0
		Pease,	—	0	4	0
<i>Salisbury to Romsey,</i>		Wheat,	—	0	3	1
		Barley,	—	0	4	0
		Oats,	—	0	5	2
		Beans,	—	0	4	0
		Pease,	—	0	3	0
<i>Alresford to Alton,</i>		Wheat,	—	0	3	0
		Barley,	—	0	4	0
		Oats,	—	0	4	3
		Pease,	—	0	3	2
		Tares,	—	0	2	0
<i>Alton to Farnham,</i>		Wheat,	—	0	3	0
		Barley,	—	0	4	0
		Oats,	—	0	4	0
		Pease,	—	0	3	2
			—	0	2	2
<i>Ripley,</i>	— —	Wheat,	—	0	2	2
		Barley,	—	0	3	3
		Oats,	—	0	4	2
		Beans, (dibbled)	—	0	3	0
		Pease,	—	0	3	0
<i>Ilford,</i>	— —	Wheat,	—	0	2	0
		Barley,	—	0	3	0
		Oats,	—	0	4	0
<i>Ingatestone to Chelms-</i> <i>ford,</i>	— —	Wheat,	—	0	2	0
		Oats,	—	0	4	0
		Beans,	—	0	2	0
		Pease,	—	0	2	0
Average,	—	Wheat,	—	0	2	2
		Barley,	—	0	3	2
		Oats,	—	0	4	0
		Beans,	—	0	2	2
		Pease,	—	0	2	3

These averages are nearly what might be expected; and contain nothing inconsistent with good husbandry; indeed were I to name quantities which I thought would prove generally beneficial, I know none more likely than these, considering that so many of these places are situated on a very rich soil. It will next be of use to compare the quantity of seed with the product, to discover if there is any remarkable coincidence between certain portions of the one, with those of the other.

W H E A T.

		Seed.			Crop.		
		Q.	B.	P.	Q.	B.	P.
Near Bury,	—	0	2	0	2	4	0
Hedingham,	—	0	2	0	3	4	0
Sampford,	—	0	2	0	3	0	0
Braintree to Chelmsford,		0	3	2	3	0	0
Turville,	—	0	2	1	2	4	0
Lanwachers,	—	0	2	0	2	2	0
Bridgend,	—	0	3	0	3	4	0
Salisbury Plain,	—	0	3	0	2	4	0
Salisbury to Romsey,	—	0	3	1	3	0	0
Alresford to Alton,	—	0	3	0	2	0	0
Alton to Farnham,	—	0	3	0	3	0	0
Ripley,	—	0	2	2	3	0	0
Ilford,	—	0	2	0	4	0	0
Ingatestone to Chelmsford,		0	2	0	2	4	0

Two bushels the quantity of seed.

Near Bury,	—	0	2	0	2	4	0
Hedingham,	—	0	2	0	3	4	0
Carry over		0	4	0	6	0	0

		Q.	B.	P.	Q.	B.	P.
Brought over	—	0	4	0	6	0	0
Sampford,	—	0	2	0	3	0	0
Lanvachers,	—	0	2	0	2	2	0
Ilford,	—	0	2	0	4	0	0
Ingatestone,	—	0	2	0	2	4	0
		1	4	0	17	6	0
Average,	—	0	2	0	2	7	2

Two bushels to three.

Turville,	—	0	2	1	2	4	0
Ripley,	—	0	2	2	3	0	0
		0	4	3	5	4	0
Average,	—	0	2	1½	2	6	0

Three bushels.

Bridgend,	—	0	3	0	3	4	0
Salisbury Plain,	—	0	3	0	2	4	0
Alresford to Alton,		0	3	0	2	0	0
Alton to Farnham,		0	3	0	3	0	0
		1	4	0	11	0	0
Average,	—	0	3	0	2	6	0

Above three bushels.

Braintree to Chelmsford,		0	3	2	3	0	0
Salisbury to Romsey,		0	3	1	3	0	0
		0	6	3	6	0	0
Average,	—	0	3	1½	3	0	0

		Q.	B.	P.
Product from more than three	}			
bushels of seed,		3	0	0
———— From two bushels,	—	2	7	2
———— From three bushels,	—	2	6	0
———— From two to three bushels		2	6	0

There are contradictions in this table difficult to account for, as more than 3 bushels of seed yield the greatest crop, 3 bushels should yield more than 2, instead of which 2 yield more than 3. But we may venture to suppose, that there are soils whereon 3 bushels will prove more advantageous than 2, which is a hint that may in certain cases prove of use.

B A R L E Y.

		Seed.			Crop.		
		Q.	B.	P.	Q.	B.	P.
Near Bury,	—	0	3	2	3	4	0
Hedingham,	—	0	4	0	4	4	0
Sampford,	—	0	4	0	5	4	0
Braintree to Chelmsford,		0	3	0	3	0	0
Turville,	—	0	4	0	4	0	0
Lanvachers,	—	0	3	0	2	2	0
Newport,	—	0	3	0	2	0	0
Salisbury,	—	0	4	0	3	0	0
Salisbury to Romsey		0	4	0	3	6	0
Alresford to Alton,		0	4	0	2	4	0
Alton to Farnham,		0	4	0	4	0	0
Ripley,	— —	0	3	3	4	0	0
Ilford,	— —	0	3	0	5	0	0

Three bushels the quantity of seed.

Braintree to Chelmsford,	0	3	0	3	0	0
Lanvachers,	—	0	3	2	2	0

			<i>Seed.</i>			<i>Crop.</i>		
			Q.	B.	P.	Q.	B.	P.
Newport,	—		0	3	0	2	0	0
Ilford,	—	—	0	3	0	5	0	0
			1	4	0	12	2	0
Average,	—		0	3	0	3	0	2

From three to four bushels.

Bury,	—		0	3	2	3	4	0
Ripley,	—		0	3	3	4	0	0
			0	7	1	7	4	0
Average,	—		0	3	2½	3	6	0

Four bushels.

Hedingham,	—		0	4	0	4	4	0
Sampford,	—		0	4	0	5	4	0
Turville,	—		0	4	0	4	0	0
Salisbury,	—		0	4	0	3	0	0
Salisbury to Romsey,			0	4	0	3	6	0
Alresford to Alton,			0	4	0	2	4	0
Alton to Farnham,			0	4	0	4	0	0
			3	4	0	27	2	0
Average,	—		0	4	0	3	7	0

RECAPITULATION.

Product from four bushels,	—		3	7	0
— From three to four	—		3	6	0
— From three	—		3	0	2

The

The regularity of the fall in this table, gives great reason to suppose that it is owing to the quantity of seed, or at least, that it furnishes a hint which much deserves a further enquiry. There are great variations in the places where they use 4 bushels, both in soil and rent; so that we cannot attribute this fall totally to other circumstances. It is fortunate that the most advantageous portion of seed should be that which is in most general use.

O A T S.

			Seed.			Crop.		
			Q.	B.	P.	Q.	B.	P.
<i>Bury,</i>	—	—	0	4	0	4	0	0
<i>Heddingham,</i>	—	—	0	4	0	5	0	0
<i>Sampford,</i>	—	—	0	4	0	4	0	0
<i>Turville,</i>	—	—	0	4	0	4	2	0
<i>Lanvachers,</i>	—	—	0	3	2	2	2	0
<i>Newport,</i>	—	—	0	2	2	2	0	0
<i>Salisbury,</i>	—	—	0	5	0	5	0	0
<i>Salisbury to Romsey,</i>			0	5	2	4	4	0
<i>Alresford to Alton,</i>			0	4	3	3	0	0
<i>Alton to Farnham,</i>			0	4	0	4	0	0
<i>Ripley,</i>	—	—	0	4	2	4	4	0
<i>Ilford,</i>	—	—	0	4	0	6	0	0
<i>Ingatestone to Chelmsford,</i>			0	4	0	3	0	0

Two bushels and an half.

<i>Newport,</i>	—	0	2	2	2	0	0
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Three bushels and an half.

<i>Lanvachers,</i>	—	0	3	2	2	2	0
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Four bushels.

				<i>Crop.</i>		
				Q.	B.	P.
Bury,	—	—	—	4	0	0
Heningham,	—	—	—	5	0	0
Sampford,	—	—	—	4	0	0
Turville,	—	—	—	4	2	0
Alton to Farnham,	—	—	—	4	0	0
Iford,	—	—	—	6	0	0
Ingatestone to Chelmsford,	—	—	—	3	0	0
				30	2	0
Average,	—	—	—	4	2	2

From four bushels to five.

		<i>Seed.</i>			<i>Crop.</i>		
		Q.	B.	P.	Q.	B.	P.
Alresford to Alton,	—	0	4	3	3	0	0
Ripley,	—	0	4	2	4	4	0
		0	9	1	7	4	0
Average,	—	0	4	2½	3	6	0

Five bushels and upwards.

Salisbury,	—	0	5	0	5	0	0
Salisbury to Romsey,	—	0	5	2	4	4	0
		1	2	2	9	4	0
Average,	—	0	5	1	4	6	0

RECAPITULATION.

	Crop.		
	Q.	B.	P.
Product from five bushels and upwards, — }	4	6	0
———— From four bushels, —	4	2	2
———— From four to five bushels,	3	6	0
———— From three bushels and an half,	2	2	0
———— From two bushels and an half,	2	0	0

I shall not venture to decide the most beneficial quantities of seed from this table, but I think we may fairly venture to reject the undistinguishing recommendations which have been given, by several authors, in favour of using very small quantities of seed. Two bushels, and even one, have been named as seed enough for an acre of land, with strong assertions that the farmers do not get half the crops they ought, for want of sowing less seed. If so, the using only a proper quantity would be so great an advantage, that it would over-balance many others; but this table proves the direct contrary. Four bushels are the most common quantity; if these gentlemen's opinions were founded on various practice, those farmers who use more than that common quantity, would reap much less crops than their neighbours, instead of which they reap much greater. I say *various* practice, because I well know that very small quantities of seed should be sown on

on land excessively rich. A gentleman farmer may make his field or two as rich as a garden, and then find out that one or two bushels an acre of oats are sufficient; but he is not therefore to condemn the custom of his neighbours, who sow more; the quantity of seed should be proportioned to the poverty of the ground; for in rich land corn tillers so much as apparently to cover the field, but in poor land it does not tiller at all, consequently the grains should be so much the nearer. However, whether this is, or is not, the proper way of accounting for the variations we see in this table, certainly it shews that much larger quantities of oat-feed are used with success, than what are recommended by the modern writers of husbandry.

B E A N S.

	<i>Seed.</i>			<i>Crop.</i>		
	Q.	B.	P.	Q.	B.	P.
Bury, ———	0	2	0	4	0	0
Sampford, —	0	2	0	4	0	0
Braintree to Chelmsford,	0	2	2	3	4	0
Lawvachers, —	0	4	0	2	0	0
Salisbury, —	0	2	0	3	0	0
Salisbury to Romsey,	0	4	0	2	0	0
Ingatestone to Chelmsford,	0	2	0	3	0	0

Two bushels and two and an half.

Bury, ———	0	2	0	4	0	0
Sampford, —	0	2	0	4	0	0

Carry over, 0 4 0 8 0 0

S

	Seed.			Crop.		
	Q.	B.	P.	Q.	B.	P.
Brought over,	0	4	0	8	0	0
Braintree to Chelmsford,	0	2	2	3	4	0
Salisbury, —	0	2	0	3	0	0
Ingatestone to Chelmsford,	0	2	0	3	0	0
	1	2	2	17	4	0
Average, —	0	2	2	3	4	0

Four bushels.

Lanvachers, —	0	4	0	2	0	0
Salisbury to Romsey,	0	4	0	2	0	0
Average, —	0	4	0	2	0	0
Under four bushels,	—			3	4	0
Four bushels,	—			2	0	0
				1	4	0

Here we find that one quarter four bushels are lost, by doubling the quantity of seed, which is directly contrary to the case with oats, and other white corn: the difference is owing to the beans being hand-hoed, when sown thin, which is not the case with white corn; the hand-hoe keeps down all weeds, and enables the crop to gain the full nourishment of the land, which, with the circumstance of beans always being sown on the richer soils, sufficiently accounts for

for the smallness of the quantity of seed ; but if oats were underseeded, those that *do* grow, have not all the food the land yields, but a plentiful crop of weeds unattacked by the hoe : Beans cannot be advantageously hoed, if more than two bushels of seed be sown ; indeed the most beneficial culture for them, is with the drill and horse-hoe. These circumstances sufficiently shew, that two bushels are enough of beans for an acre ; upon the same principles that four at least are requisite of oats.

P E A S E.

		Seed.			Crop.		
		Q.	B.	P.	Q.	B.	P.
Bury,	—	0	2	0	2	4	0
Hedingham,	—	0	2	0	4	0	0
Braintree to Chelmsford,		0	2	2	5	0	0
Salisbury,	—	0	4	0	2	4	0
Salisbury to Romsey,		0	3	0	2	4	0
Alresford to Alton,		0	3	2	2	4	0
Alton to Farnham,		0	3	2	3	0	0
Ripley,	—	0	3	0	4	0	0
Longatstone to Chelmsford,		0	2	0	3	0	0

Under three bushels.

Bury,	—	0	2	0	2	4	0
Hedingham,	—	0	2	0	4	0	0
Braintree to Chelmsford,		0	2	2	5	0	0
Longatstone to Chelmsford,		0	2	0	3	0	0
		1	0	2	14	4	0
Average,	—	0	2	0	3	5	0

[260]
Three bushels.

				Crop.		
				Q.	B.	P.
Salisbury to Romsey,	—	—	—	2	4	0
Ripley,	—	—	—	4	0	0
				6	4	0
Average,	—	—	—	3	2	0

Three and an half.

Alresford to Alton,	—	—	—	2	4	0
Alton to Farnham,	—	—	—	3	0	0
				5	4	0
Average,	—	—	—	2	6	0

Four bushels.

Salisbury,	—	—	—	2	4	0
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RECAPITULATION.

Product from under three bushels	—	—	—	3	5	0
From three bushels	—	—	—	3	2	0
From three and an half,	—	—	—	2	6	0
From four,	—	—	—	2	4	0

Nearly the same observations are applicable to this table as to that of beans; small quantities of seed ever prove advantageous when the hand-hoe is introduced; a practice pretty general in the best cultivated parts of *England*. It is true, large portions of seed are in some places sowed, where the not only hoe, but even drill; but the bene

of the culture is what in such cases makes the crop.

If pease are sown without an intention of hoeing, I should use a large quantity of seed; not less than four bushels an acre of large hog pease; for one of the greatest advantages of the pea culture is cleaning the land of weeds, and loosening the surface; these effects are gained by a thick covering of the land; if they are thin, the weeds will get the better of the crop: these distinctions must always be made; for certainly the same quantity of seed cannot be proper for lands to be hoed, as for those that are not to be hoed.

In respect to crops, of an uncommon sort, or at least not generally cultivated, the profit appears to be vastly greater, than from corn or natural grass. This is particularly the case with hops about *Heddingham* and *Farnham*: a middling crop, at the former place, amounts to 35 *l.* an acre; and at the latter, more than double that sum. This latter produce is, indeed, exceedingly great; but allowing for any little exaggeration in the account, yet great deductions may be made, and vast profit left; besides, the rent of the land there rises to a greater price than in any part of the kingdom I am acquainted with, to 9 *l.* an acre, and some even to 15 *l.* Nothing in the common husbandry ever equals those products of

S 3 hops;

hops ; nor are the expences upon them so great, as to reduce hop planting to a mean with the general agriculture ; for they seldom rise to 20 *l.* an acre at *Heddingham*, and not much above 30 *l.* at *Farnham*. But as these expences are infinitely greater than what attends the usual system of farming, much fewer people have the substance necessary for undertaking this garden husbandry, which renders the profit the more considerable.

I have examined in a great number of places, fields which would produce hops equally well with any about *Heddingham*, and that lett for a common rent, in which the hop culture would be an infinite improvement : but common farmers, and even the generality of landlords, have no strong ideas of the utmost profit to which they might employ their soils.

Next to hops, potatoes are the most beneficial vegetable that I have met with. Their culture in *Essex* is exceeding profitable ; taken up in *July*, when they are not above one fourth grown, they yield 40 sacks *per* acre, on a medium, and in money, from 25 *l.* to 35 *l.* an acre ; sometimes more, which is very great ; nor are the expences upon them high ; and a peculiar benefit attending them, is the excellency of their nature, in sweetening and ameliorating the soil ; the extreme
thick-

thickness of shade they yield covers the soil entirely, and renders it very mellow; they find them the best preparers for any kind of grain.

It is astonishing their culture is not more common; for any ley ground does for them that is tolerably rich, and the worst soils will bear plentiful crops of them, if well dunged. As to the part of *Essex* where they are most common, being very near to *London*, the argument proves nothing against the extension of the practice, because, other places are equally near *London*, that do not plant them; and vast tracts of land that have water-carriage might convey their crops to the capital at a less expence, though five times further distant, for all the *Essex* ones are carried by land.—As *Lucerne* and *Burnet* are yet cultivated chiefly in small quantities; and no where the *common* crops of any place I have seen, I shall speak of them when I come to consider what I call experimental agriculture.

The variations I met with in the courses of crops—in the introduction of ameliorating ones—and the maxims of fallowing are great; but less in fallowing than any other. In the prodigiously improved lands of *Norfolk*, fallowing is scarcely known, and vast are the crops they raise without it.

On the improved farm at *Tostoc*, near *Bury*, the land is never fallowed.

Between that place and *Lavenham*, they fallow for wheat; sometimes for barley.

Between *Braintree* and *Chelmsford*, for both wheat and barley.

About *Dartford* and *Shooter's-bill* in *Kent*, and around *Wycomb* in *Buckinghamshire*, not at all.

From *Tetsford* to *Oxford*, *Witney*; and again, between *Frog-mill* and *Crickly-bill*, for barley.

Between *Newnham* and *Chepstow*, quite down to *Bridgend*, and across the *Severne* through all the tract of country round *Bristol* and *Bath* to *Devizes*, across *Salisbury* plain to that city, and thence through *Winchester* and *Guilford* to *London*; and, lastly, to *Chelmsford*, a line of country of about 240 miles, it is all fallow for wheat. But I should remark, that this uniform husbandry has no general cause in the nature of the soil; on the contrary, it is in many places inferior to other methods; for they fallow, as I have already minuted, where the land is perfectly well adapted to turnips and clover; in which case there should be no fallowing, but barley sown after turnips, and wheat after clover.

Of the ameliorating, or *fallow crops*, pease and beans (as I have already mentioned potatoes) claim the first notice; and
in

in no article of husbandry have I found greater contrasts than in these. I shall first minute the chief variations, and then explain the causes of them; the rent I add merely by way of an index to the common nature of the country.

In *Marshland, Norfolk* :

			Quarters,
Mean crop,	-	-	$5\frac{1}{2}$
Rent,	-	20 s.	

Between *Bury and Hadleigh, Suffolk* :

Crop,	-	-	4
Pease,	-	-	$2\frac{1}{2}$
Rent,	-	13 s.	

Between *Hedingham and Braintree* :

Crop,	-	-	4
Pease,	-	-	4
Rent,	-	14 s.	

Between *Braintree and Chelmsford, Essex* :

Crop,	-	-	$3\frac{1}{2}$
Ditto, pease,	-	-	5
Rent,	-	16 s.	

Between *Woodstock and Witney, Oxfordshire* :

Crop,	-	-	$3\frac{1}{2}$
Rent,	-	15 s. 6 d.	

Cotswold Hills, Gloucestershire :

Crop,	-	-	3
Rent,	-	5 s. 6 d.	

Between *Chepstow and Newport, Monmouthshire* :

Crop, not	-	-	2
Rent,	-	8 s.	

Around Cowbridge, Glamorganshire :

		Quarters.
Crop, less than	-	2
Rent,	- 10 s.	

Near the *Dewises*, towards *Salisbury*, *Wilts* :

Crop,	-	-	3
Pease,	-	-	2½
Rent,	-	5 s.	

Between *Salisbury* and *Romsey*, *Hampshire* :

Crop,	-	-	2
Pease,	-	-	2½
Rent,	-	16 s.	

Alresford to *Alton* :

Pease,	-	-	2½
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Alton to *Farnham* :

Pease,	-	-	3
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Between *Guilford* and *Ripley*, *Surry* :

Crop, pease,	-	-	4
Rent,	-	12 s.	

About *Ilford*, *Essex* :

Crop, garden pease,	6, 7, or 8 l.	
Rent,	-	30 s.

Ingatestone to *Chelmsford* :

Crop,	-	-	3
Pease,	-	-	3
Rent,	-	13 s. 6 d.	

These crops call for some very obvious remarks: rent we find has nothing to do with them, if the soil is in any measure to be judged of by it; good crops of beans proceed from other circumstances more than

than from the richness of the land. By much the worst crops, in this table, are those in *Monmouthshire*, *Glamorganshire*, and part of *Wiltshire* and *Hampshire*; the rents of which tracts appear to be, on a medium, as high as any of the others; but if you turn to the preceding passages, wherein an account is given of their culture, you will find these are the only places where they do not hoe them. The medium of those tracts, which hoe, is about 4 qrs. and $\frac{1}{2}$; from whence it appears, that those slovenly farmers, who omit this necessary operation, lose, at least, the amount of their crops, for want of following better examples. I reasoned with several of them, on this part of their practice; but they said, They never heard of such a thing, 'twould never do, and could not answer.

The number of ploughings given for each crop, is an object in husbandry which should not be overlooked. All these circumstances that can affect the products, should be drawn into one view, which will enable one to discover what the particulars are, that probably give great crops in one place, and poor ones in another. Variations lie in soil, seed, tillage, manuring, &c. all should be taken into account to prevent our attributing effects to wrong causes.

Mr. Ray, at Tostock :

			<i>Earths.</i>
For turnips,	-	-	4 to 6
Barley,	-	-	3
Oats,	-	-	3
Wheat, <i>on clover,</i>	-	-	1

Near Bury :

For Turnips,	-	-	4 or 5
Barley,	-	-	3
Wheat, <i>on clover,</i>	-	-	1
White oats,	-	-	3
Black ditto,	-	-	1
Beans,	-	-	2
Pease,	-	-	1

About Hedingham :

For Wheat,	-	-	3 or 4
Barley,	-	-	1 or 2
Oats,	-	-	3
Pease,	-	-	1
Turnips,	-	-	4

Sampford :

For Wheat,	-	-	4
Barley,	-	-	5
Oats,	-	-	1 or 2
Beans,	-	-	2

Braintree to Chelmsford :

For Wheat,	-	-	3
Barley,	-	-	2
Oats,	-	-	3
Beans,	-	-	1
Pease,	-	-	2
Turnips,	-	-	2

About Turville :

For Wheat, <i>on clover,</i>	-	-	1
<i>on fallow,</i>	-	-	3 or 4

For

Earths.

For Barley,	-	-	1 or 2
Oats,	-	-	1
Turnips,	-	-	3 or 4

About *Lanvachers* :

For Wheat,	-	-	3
Barley,	-	-	2
Oats,	-	-	1
Beans,	-	-	1
Pease, <i>barrowed in,</i>	-	-	1
<i>ploughed in,</i>	-	-	2

Around *Newport* :

For Wheat,	-	-	4
Barley,	-	-	3 or 4
Oats,	-	-	1
Beans,	-	-	1
Turnips,	-	-	1

Near *Bridgend* :

For Wheat,	-	-	3
Barley,	-	-	2 or 3
Oats,	-	-	1

From the *Devizes* to *Salisbury* :

For Wheat,	-	-	3
Barley,	-	-	3
Oats,	-	-	1
Beans,	-	-	1
Pease,	-	-	1
Turnips,	-	-	3

From *Salisbury* to *Romsey* :

For Wheat,	-	-	3 or 4
Barley,	-	-	1 to 3
Oats,	-	-	1
Beans,	-	-	2
Pease,	-	-	1 to 3
Turnips,	-	-	4 or 5

From

From *Alresford* to *Alton* :

	<i>Earths.</i>
For Wheat,	3
Barley,	2
Oats,	1
Pease,	1
Tares,	1
Turnips,	3 or 4

From *Alton* to *Farnham* :

For Wheat,	3
Barley,	2 or 3
Oats,	1
Pease,	1 or 2
Turnips,	3

About *Ripley* :

For Wheat,	3 or 4
Barley,	1 or 2
Oats,	1
Beans,	1
Pease,	1
Turnips,	2 or 3

About *Ilford* :

For Wheat,	4
Barley,	3 or 4
Oats,	3
Turnips,	4

From *Ingatestone* to *Chelmsford* :

For Wheat,	3
Oats,	1
Beans,	1
Pease,	2 or 3
Turnips,	4

Having given this general table of the number of ploughings for every crop, I shall

shall in the next place take each separate, and compare it with other circumstances.

W H E A T.

Place.	Earths.	Seed. Bush.	Crop. Qrs.	Rent. l. s. d.
Mr. Ray,	1 on cl.		4 $\frac{3}{4}$	0 14 0
Near Bury,	1 do.	2	2 $\frac{1}{2}$	0 12 0
About Hedingham,	3 $\frac{1}{2}$	2	3 $\frac{1}{2}$	0 12 6
Sampford,	4	2	3	0 14 0
Braintree to Chelmsford, —	3	3 $\frac{1}{2}$	3	0 15 0
About Turville,	1 on cl.	2 $\frac{1}{4}$	2 $\frac{1}{2}$	0 9 0
	3 $\frac{1}{2}$ fal.	do.	do.	
Lanvachers, —	3	2	2 $\frac{1}{4}$	0 15 0
Around Newport,	4		2	0 8 0
Near Bridgend,	3	3	3 $\frac{1}{2}$	0 10 0
From the Devizes to Salisbury,	3	3	2 $\frac{1}{2}$	0 5 0
From Salisbury to Romsey, —	3 $\frac{1}{2}$	3 $\frac{1}{4}$	3	0 16 0
From Alresford to Alton, —	3	3	2	0 7 6
From Alton to Farnham, —	3	3	3	0 17 6
About Ripley,	3 $\frac{1}{2}$	2 $\frac{1}{2}$	3	0 12 0
About Ilford,	4	2	4	1 10 0
From Ingatestone to Chelmsford,	3	2	2 $\frac{1}{2}$	0 13 6

One Earth on Clover.

Places.	Seed. Bush.	Crop. Qrs.	Rent. l. s. d.
Mr. Ray, —	2	4 $\frac{3}{4}$	0 14 0
Near Bury, —	2	2 $\frac{1}{2}$	0 12 0
About Turville, —	2 $\frac{1}{4}$	2 $\frac{1}{2}$	0 9 0
	6 $\frac{1}{4}$	9 $\frac{1}{4}$	1 15 0
Average, —	2	3 $\frac{1}{4}$	0 11 8

Three Earths.

Places.	Seed. Bush.	Crop. Qrs.	Rent.		
			l.	s.	d.
Braintree to Chelmsford,	$3\frac{1}{2}$	3	0	15	0
Lanvachers, — —	2	$2\frac{1}{4}$	0	15	0
Near Bridgend, — —	3	$3\frac{1}{2}$	0	10	0
From Devizes to Salisbury,	3	$2\frac{1}{2}$	0	5	0
From Alresford to Alton,	3	2	0	7	6
From Alton to Farnham,	3	3	0	17	6
Ingatestone to Chelmsford,	2	$2\frac{1}{2}$	0	13	6
	$19\frac{1}{2}$	$18\frac{3}{4}$	4	3	6
Average, — —	$2\frac{3}{4}$	2 : 5b.	0	11	11

Three and an half, and four Earths.

About Hedingham, — —	2	$3\frac{1}{2}$	0	12	6
Sampford, — —	2	3	0	14	0
Turville, — —	$2\frac{1}{4}$	$2\frac{1}{2}$	0	9	0
Around Newport, — —	—	2	0	8	0
From Salisbury to Romsey,	$3\frac{1}{4}$	3	0	16	0
About Ripley, — —	$2\frac{1}{2}$	3	0	12	0
About Ilford, — —	2	4	1	10	0
	14	21	5	2	6
Average, — —	$2\frac{1}{4}$	3	0	14	7

RECAPITULATION.

One earth, on clover,	2	$3\frac{1}{4}$	0	11	8
Three and an half, and					
four earths, — —	$2\frac{1}{4}$	3	0	14	7
Three earths, — —	$2\frac{3}{4}$	2 : 5b.	0	11	11

Upon this table I must remark, that clover land being ploughed but once, is no bad husbandry, since more tillage could not be

be given; no preparation for wheat ever exceeds that of a clover lay; which produces I believe the greatest crops of that grain that are gained in the kingdom. We see in this table that the lowest rent produces the greatest crop; which must be attributed to the superiority of the clover over any tillage that can be given. Few arguments stronger can be urged in favour of the clover husbandry, which many tracts of the kingdom are yet but little acquainted with: no object in *British* agriculture demands more attention than this; clover being equally adapted, when properly managed, to clean and enrich the soil; and to give it these effects, little more is necessary than sowing it ever with the first crop of corn that succeeds the fallow or turnips. But if you fallow for wheat, then take barley, and with that sow the clover; the crop will not be near so clean, nor the land kept in equal heart. I believe the complaints often made of this grass wearing out of some lands, souring others, and not bringing good wheat on others, all are owing to sowing it with the second instead of the first crop of corn.

Three and an half, and four earths, we find produce more than three, by three bushels an acre; indeed the difference is not decisive, because the rent is also higher.

T

However,

However, this point of ploughing for wheat should be well attended to by all farmers; less than four earths in fallowing must be very inefficacious; neither sufficiently loosening the soil, nor destroying weeds. If the land abounds much with seed weeds, the fallow ought to be made pretty fine by the beginning of *June*, so that all may vegetate, and be destroyed by a ploughing. This cannot possibly be effected with less than four earths, nor unless the first be given at *Michaelmas*. Five or six would be far more effectual, and would answer the extra expence extremely well. But as to the practice of giving but three ploughings, it is impossible that should be at all effectual as a preparation of land, which the farmers seldom think of fallowing till very foul.

B A R L E Y.

<i>Places.</i>	<i>Earths.</i>	<i>Seed.</i>			<i>Crop.</i>			<i>Rent.</i>		
		Q.	B.	P.	Q.	B.	P.	l.	s.	d.
Mr. Ray,	3	0	4	0	6	0	0	0	14	0
Near Bury,	3	0	3	2	3	4	0	0	12	0
About Hedingham,	1½	0	4	0	4	4	0	0	12	6
Sampford,	5	0	4	0	5	4	0	0	14	0
Braintree to Chelmsford,	2	0	3	0	3	0	0	0	15	0
About Turville,	1½	0	4	0	4	4	0	0	9	0
Lanwachers,	2	0	3	0	2	2	0	0	15	0
Newport,	3½	0	3	0	2	0	0	0	8	0
Bridgend,	2½				3	1	0	0	10	0
From the Devizes to Salisbury,	3	0	4	0	3	0	0	0	5	0

Places.	Earths.	Seed.			Crop.			Rent.		
		Q.	B.	P.	Q.	B.	P.	l.	s.	d.
From Salisbury to Romsey, -	2	0	4	0	3	6	0	0	16	0
From Alresford to Alton, -	2	0	4	0	2	4	0	0	7	6
From Alton to Farnham, -	2½	0	4	0	4	0	0	0	17	6
About Ripley,	1½	0	3	3	4	0	0	0	12	0
About Ilford,	3½	0	3	0	5	0	0	1	10	0

One Earth and an half.

About Heddingham, -	0	4	0	4	4	0	0	0	12	6
About Turville,	0	4	0	4	0	0	0	0	9	0
	1	0	0	8	4	0	0	1	1	6
Average, -	0	4	0	4	2	0	0	0	10	9

Two Earths.

Braintree to Chelmsford,	0	3	0	3	0	0	0	0	15	0
Lanwachers,	0	3	0	2	2	0	0	0	15	0
From Salisbury to Romsey,	0	4	0	3	6	0	0	0	16	0
From Alresford to Alton,	0	4	0	2	4	0	0	0	7	6
	1	6	0	11	4	0	0	2	13	6
Average, -	0	3	2	2	7	0	0	0	13	4

Two Earths and an half.

Bridgend,				3	1	0	0	0	10	0
From Alton to Farnham,	0	4	0	4	0	0	0	0	17	6
				7	1	0	0	1	7	6
Average, -	-	-	-	3	4	2	0	0	13	9

Three Earths.

	Seed.			Crop.			Rent.		
	Q.	B.	P.	Q.	B.	P.	l.	s.	d.
Mr. Ray,	0	4	0	6	0	0	0	14	0
Near Bury,	0	3	2	3	4	0	0	12	0
From Devizes to Salisbury, -	0	4	0	3	0	0	0	5	0
	1	3	2	12	4	0	1	11	0
Average, -	0	3	3	4	1	1	0	10	4

More than three Earths.

Sampford,	0	4	0	5	4	0	0	14	0
Newport,	0	3	0	2	0	0	0	8	0
About Ilford,	0	3	0	5	0	0	1	10	0
	1	2	0	12	4	0	2	12	0
Average, -	0	3	1	4	1	1	0	17	4

RECAPITULATION.

One Earth and an half,	0	4	0	4	2	0	0	10	9
Three Earths,	0	3	3	4	1	1	0	10	4
More than three Earths,	0	3	1	4	1	1	0	17	4
Two Earths & an half,				3	4	2	0	13	9
Two Earths,	0	3	2	2	7	0	0	13	4

There are so many contradictions in this table, that I know not what clearly to make of it; the least tillage giving the greatest crop should make two earths superior to three or more; instead of which they are much inferior. Nor is it rent that reverses

reverses the order of the table; for the *biggest* in product, is within six-pence an acre of the *lowest* in rent; in a word, the number of ploughings seem to have very little effect; this being the case, let us examine the point, and see if we can account for the apparent contradiction.

There is only one place in this list where they give a complete fallow for barley, which is *Sampford*; throwing that aside, we are to enquire into the proper tillage of turnip land, or a stubble for this grain.

Early sowing is one of the most important articles in the culture of barley: if three ploughings can be given, and the seed got in in *March* at furthest, certainly the tillage will be so much the better; but rather than defer the sowing three weeks or a month, I had much rather throw in the crop on one earth.

Turnip land it should be remembered must be ploughed once or thrice; the first earth turns in the dung of the sheep that eat the crop; the second turns it up again; that will not do for sowing, but another must be given to throw it back again: turnips are of most use in the spring, *February* and *March* for instance; now what time is there after such a season of consuming them, to give the land three ploughings? It is evident enough that the

seed would not be in the ground till the end of *April*, or the beginning of *May*.

Hence it is that the best and most attentive farmers have in many seasons found it advantageous to watch the lucky moment of ploughing their turnip lands, so that they may break up in fine moulds, which will always be the case, if the precise time is duly attended to; one earth then brings it to crumbling order, and the harrows make it garden fine; in such a case the seed is got in early, and the land at the same time in good tillage.

But, on the contrary, if the farmer will, in defiance of the seasons, and a late sowing, give his turnip lands three earths, he will depend on the weather for having three seasons instead of one, and all of them almost equally necessary; for what figure will a barley crop make, the tillage for which is given, while the land is in bad order? Loams which are not absolutely dry will require pulverization, and at the same time must be stirred only when quite dry.

It is for these reasons that I apprehend we find the products of barley not proportioned to the number of earths; which must ever depend on the state of the land with an absolute proviso in all cases, never for the sake of giving more earths, to wait till a late sowing.

O A T S.

Place.	Earths.	Seed.			Crop.			Rent.		
		Q.	B.	P.	Q.	B.	P.	l.	s.	d.
Mr. Ray,	3	0	4	0	6	0	0	0	14	0
Near Bury,	3 whi.	0	4	0	4	0	0	0	12	0
	1 bla.									
Hedingham,	3	0	4	0	5	0	0	0	12	6
Sampford,	1½	0	4	0	4	0	0	0	14	0
Braintree to										
Chelmsford,	3	0	3	0	3	0	0	0	15	0
Turville,	1	0	4	0	4	4	0	0	9	0
Lanvachers,	1	0	3	2	2	2	0	0	15	0
Around Newport,	1	0	2	2	2	0	0	0	8	0
From the Devizes										
to Salisbury,	1	0	5	0	5	0	0	0	5	0
From Salisbury to										
Romsey,	1	0	5	2	4	4	0	0	16	0
From Alresford to										
Alton,	1	0	4	3	3	0	0	0	7	6
From Alton to										
Farnham,	1	0	4	0	4	0	0	0	17	6
About Ripley,	1	0	4	2	4	4	0	0	12	0
About Ilford,	3	0	4	0	6	0	0	1	10	0
From Ingatestone										
to Chelmsford,	1	0	4	0	3	0	0	0	13	6

One Earth.

Turville,	0	4	0	4	4	0	0	9	0
Lanvachers,	0	3	2	2	2	0	0	15	0
Newport,	0	2	2	2	0	0	0	8	0
Devizes,	0	5	0	5	0	0	0	5	0
Salisbury,	0	5	2	4	4	0	0	16	0
Alresford,	0	4	3	3	0	0	0	7	6
Alton,	0	4	0	4	0	0	0	17	6
Ripley,	0	4	2	4	4	0	0	12	0
Ingatestone,	0	4	0	3	0	0	0	13	6

Averages,	0	4	0	3	5	0	0	11	5
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One Earth and an half.

Sampford,	0	4	0	4	0	0	0	14	0
-----------	---	---	---	---	---	---	---	----	---

Three Earths.

	Seed.			Crop.			Rent.		
	Q.	B.	P.	Q.	B.	P.	l.	s.	d.
Mr. Ray,	0	4	0	6	0	0	0	14	0
Bury,	0	4	0	4	0	0	0	12	0
Hedingham,	0	4	0	0	5	0	0	12	6
Braintree,	0	3	0	3	0	0	0	15	0
Iford,	0	4	0	6	0	0	1	10	0
Average,	0	3	3	4	6	2	0	16	8

RECAPITULATION.

From three Earths,	0	3	3	4	6	2	3	16	8
— one and an half,	0	4	0	4	0	0	0	14	0
— one,	0	4	0	3	5	0	0	11	5

We cannot draw absolute decisions from this table, because the gradation of rent tallies exactly with that of ploughing, consequently we know not which cause to attribute the variation to. But we may fairly conjecture that the advantage of giving three earths for the crop, comes in as a principal cause.

With turnips the difference is great, between the right husbandry of that vegetable, as practised in *Norfolk*, *Suffolk*, *Essex*, &c. and as they are managed in *Wales*, and about *Burchalke*, near *Salisbury*: for of all crops, none require hoeing so much; there is none that will pay so well for that operation, the value of them being very trifling without it. The extensive use of them is known but little of, except in

Norfolk, *Suffolk*, and *Essex*; that is, all the uses to which they may with profit be applied. One or two places excepted, I found no farmers, but in those counties, that understood any thing of the husbandry of fattening cattle with them; feeding lean sheep, being the only use they put them to. A universal loss attending a bad culture of beans and turnips, is the loss of a year for a poor crop; for nothing is a better preparation for corn, than these vegetables, when kept perfectly clean, but none worse, when managed in a slovenly manner: and accordingly we find, that where they plough and hoe thoroughly, their best crops of corn succeed these fallow ones.

The clover husbandry I found universal, from the north of *Norfolk*, to the further end of *Glamorganshire*. Some variations I found in the management of it, but none so striking as those mentioned in the article of turnips. The worst is the sowing of hop-clover in *Wiltshire* and *Hampshire*, which paltry species is not comparable to the common broad clover. Ray-grass is likewise sown much too universally: I found it frequently on soils by far too good for it; broad clover alone, is infinitely preferable, except on very light land.

The variations in the courses of crops I found pretty considerable,

In

In the marled parts of *Norfolk*, it is ;
 1 Wheat, 4 Clover and Ray-
 2 Turnips, grafs.
 3 Barley,

In the improved farm, near *Bury*, in
Suffolk ;

1 Turnips, 3 Clover,
 2 Barley, 4 Wheat.

Mr. *Lord* ;

1 Fallow, 3 Clover 1 year or 2,
 2 Barley or Oats, 4 Wheat.

Near *Bury* ;

1 Turnips,	And,
2 Barley,	1 Fallow,
3 Clover,	2 Wheat,
4 Wheat,	3 Oats or Barley.
5 Barley.	

About *Hedingham*, in *Essex* :

1 Fallow,	5 Turnips,
2 Wheat,	6 Barley,
3 Pease,	7 Clover.
4 Wheat,	

Sampford :

1 Fallow,
 2 Barley,
 3 Oats.

Also,

1 Fallow,
 2 Wheat,
 3 Oats.

Likewise,

1 Fallow,
 2 Barley,
 3 Clover,
 4 Wheat.

Another,

1 Fallow,
 2 Barley,
 3 Beans.

If

If the third or fourth crop of this course is well manured for, it is a very good one, on rich lands.

Between *Braintree* and *Chelmsford* :

- | | |
|-----------|-----------|
| 1 Fallow, | 3 Clover, |
| 2 Barley, | 4 Wheat. |

This course upon lands too heavy for turnips is excellent. Sometimes they vary it, but for the worse :

- | | |
|-----------|-----------|
| 1 Fallow, | 3 Barley, |
| 2 Wheat, | 4 Wheat. |

No manuring can make the last crop of wheat a good one. For very rich lands, the course between *Dartford* and *Shooter's-bill* is excellent :

- | | |
|------------|-----------|
| 1 Pease, | 4 Clover, |
| 2 Turnips, | 5 Wheat. |
| 3 Barley, | |

About *Turville* :

- | | |
|-----------|-----------|
| 1 Fallow, | 3 Clover, |
| 2 Wheat, | 4 Wheat, |
| 3 Barley, | 5 Barley. |
| 4 Oats. | And, |

- | | |
|------------------|------------|
| And, | 1 Turnips, |
| 1 Fallow, | 2 Barley, |
| 2 Wheat, | 3 Oats, |
| 3 Oats or pease. | 4 Clover, |
| And, | 5 Wheat, |
| 1 Turnips, | 6 Barley. |
| 2 Barley, | All bad. |

About

About *Stoken Church*, in *Gloucestershire*:

- | | |
|-----------|----------------|
| 1 Fallow, | 3 Spring-corn, |
| 2 Wheat, | 4 Clover. |

Between *Tetsford* and *Oxford*:

- | | |
|-----------|-----------|
| 1 Wheat, | 4 Fallow, |
| 2 Beans, | 5 Barley, |
| 3 Barley, | 6 Clover. |

This is a strange course for any soil. It is the same between *Woodstock* and *Witney*. About *Sherborn* on *Cotswould-hills*, *Gloucestershire*:

- | | |
|-----------|-----------|
| 1 Fallow, | 3 Pease, |
| 2 Wheat, | 4 Barley. |

Between *Newnham* and *Chepstow*, *Gloucestershire*:

- | | |
|------------|------------------|
| 1 Fallow, | 6 Barley, |
| 2 Wheat, | 7 Clover, |
| 3 Pease, | 8 Wheat, exceed- |
| 4 Oats, | ing good. |
| 5 Turnips, | |

Between *Chepstow* and *Newport*:

- | | |
|-----------|------------------|
| 1 Fallow, | 4 Oats, |
| 2 Wheat, | 5 Ray-grass, and |
| 3 Barley, | clover. |

But of all others, I beg you will remark the following, about *Cowbridge*, in *Glamorganshire*:

- | | |
|-----------|-----------|
| 1 Wheat, | 4 Oats, |
| 2 Barley, | 5 Fallow. |
| 3 Oats, | |

Between

Between *Devizes* and *Salisbury* :

- | | |
|-----------|-------------------|
| 1 Fallow, | 3 Barley, |
| 2 Wheat, | 4 Hop-clover, &c. |

Around *Salisbury* :

- | | |
|-----------|------------------|
| 1 Fallow, | 4 Oats, pease or |
| 2 Wheat, | beans. |
| 3 Barley, | |

Between *Aylresford* and *Alton*, in *Hampshire*, a very odd course :

- | | |
|---------------------|-----------|
| 1 Turnips, | 4 Fallow, |
| 2 Barley, | 5 Wheat, |
| 3 Grasses, 2 years, | 6 Barley. |

Between *Guildford* and *Ripley*, in *Surry* :

- | | |
|----------------|-----------|
| 1 Fallow, | 4 Clover, |
| 2 Wheat, | 5 Wheat, |
| 3 Spring-corn, | 6 Beans. |

About *Ilford* in *Essex* :

- | | |
|------------|-------------|
| 1 Fallow, | 5 Barley, |
| 2 Wheat, | 6 Clover, |
| 3 Oats, | 7 Potatoes. |
| 4 Turnips, | |

There are more to commend, upon the whole, in these courses, than in any other article mentioned yet; for the husbandry of introducing a crop of pulse, roots, or grass between every two of corn, is very prevalent, and an excellent principle it is. If we except the *Welsh* courses, which are very bad, and one or two more, a crop, and fallow, or *fallow crop*, are universal.

In

In the long courses it appears how sensible the farmers are, that corn will not bear any repetitions, with so much profit in the long run, as by introducing either leguminous crop or roots.

This article of cropping judiciously, is of infinite importance. How is it possible that any land, be it ever so well ploughed and manured, can support *four* successive crops of corn, upon the strength of one fallow? according to the custom about *Cowbridge* in *Glamorganshire*! It is absolutely impossible that good crops can be gained by such husbandry; for the last two must be over-run with trumpery and weeds, without any strength to get the better of them.

No course can exceed that of turnips, barley, clover, wheat; when the land is so dry and sound as to yield good turnips, and admit their being fed or carried off, and at the same time rich enough to produce wheat; which circumstances I take to be of all others, the strongest proofs of a good soil. But even this course has been found liable to objections: in the turnip and clover countries, many farmers are persuaded their lands become surfeited with them; insomuch, that after a long repetition of this course, scarce any turnips can be gained, without much dung on the same fields, which, at first, produced plentifully without

without any. And their clovers they find rise thin, die in the winter, and wear out very soon. The remedy wanting in this case, supposing the evil real, is a substitute for each of these crops. In light soils, none are comparable to carrots and potatoes; and I might observe, that they will grow in much heavier ones than commonly imagined. I have cultivated them myself, in no inconsiderable quantities, on a good wheat soil, and with great success; and in heavy lands, cabbages thrive, with proper management, in an extraordinary manner. These crops would serve to vary the course instead of turnips, and the ground would bear the repetition of three much better than of one crop. Instead of clover, sainfoine and lucerne might be introduced; which would last in the soil five years, in perfect vigour, and form by that time a turf, the breaking up of which would yield an extraordinary profit. I do not, by any means, recommend these plants to the exclusion of clover, for I am very sensible of its prodigious value; but only to introduce them in rounds, in case the soil is tired of the latter.

Respecting manures, a recapitulation of the intelligence will give the best idea of it.

Farm yard.

Norfolk:

Quantity per acre, 12 loads.

Mr. Ray, at *Tostock* :

Method. Carts earth into his yard, and upon that fodders his cattle.

Quantity per acre, 12 to 20 loads.

Near *Bury* :

Quantity per acre, 20 loads, each 36 bushels.

Sampford :

Quantity per acre, 20 to 30 loads, mixed with border earth.

It is worthy of observation that there are no reasons of any consequence given by farmers, for the quantity they lay on of their yard dung. In one place 12 loads are used, in another 30 ; and if you ask the reason, there is none for you but custom. But this is a part of husbandry knowledge, which ought to be fixed on more certain grounds ; we ought to know for instance what quantity is most profitable, for it is not at all clear that 50, 80, or 100 loads, may yield more profit clear to the farmer upon one acre, than upon three or four ; but then a proper crop must certainly be thrown in ; of the hoeing kind, and not white corn. The following variations might be attended to.

20 loads of dung.

20 ditto, and 5 of earth.

20 ——— 10 ditto.

20 ——— 15

20 ——— 20

30	load of dung, —	
30	————	10 of earth.
30	————	20
30	————	30
40	————	—
40	————	30
40	————	40
50	————	—
50	————	40
50	————	50
60	————	—
60	————	50
60	————	50
70	————	—
70	————	70
80	————	—
80	————	80
100	————	—
100	————	80
100	————	100

The dung all made of the same quantity of straw, and number of cattle; and the earth of the same quality: by degrees such a scale of experiments might be formed, and tried; the smaller quantities for beans or pease, and the larger ones for turnips, carrots, potatoes, &c. The result would be particularly instructive, for most husbandmen are ignorant what quantity of dung *per acre* is most beneficial.

MARLE.

*In Norfolk :**Quantity.* 100 loads.*Sort.* Fat and soapy.*Expence,* ——— 1 7 6*Labour and team,* ——— 1 7 6£. 2 15 0*Duration.* 20 years.*Mr. Wright, at Thetford :**Sort.* Hard and chalky.*Benefit.* Very great.*Billericay :**Sort.* Chalk.*Expence.* Brought from *Grays*; 5 $\frac{1}{2}$ d. or
6 d. a bushel, some at 10 l. an acre.*Use.* Mix it with earth or dung.*Bruckalk :**Sort.* Chalk, fat and soapy.*Quantity.* 20 waggon loads.*Duration.* 20 years.

Marle and chalk are to be ranked in the same class, for they are the same thing under different names; wherever these manures can be gained, they ought to be esteemed treasures, for they have two excellent circumstances, which attend few other sorts; they are cheap, and of long duration. Through this journey, wherever used, the farmers declare themselves in very warm terms in their favour.

CLAY.

Mr. *Wright*, at *Thetford* :

Use. Spread it on a dry sandy sheep walk.

Benefit. Very great.

Mr. *Ray*, at *Tostock* :

Quantity. 80 to 100 loads.

Use. On all his arable fields.

Benefit. Very great.

Mr. *Lord*, at *Welnetbam* :

Use. Carts ditch clay, in great quantities, on to a clay soil.

Benefit. Very great; raises $5 \frac{1}{2}$ qrs. per acre of wheat.

Clay is spread at these places with the same views as marle; and the farmers suppose it to act in the same manner. The most remarkable of these instances is that of Mr. *Lord*, who spreads clay upon a clay soil with great success; and I have heard of similar instances; this shews the great consequence of refreshing the earth with the addition of a body that has not been employed in yielding food for vegetables: this seems to be the only distinction, and the only point in which clay can be serviceable when spread on clay, unless there happens to be an essential difference between the sorts, which is possible, though the appearance of both be the same.

L I M E.

*Lanvachers :**Quantity per acre,* 48 bushels.*Cowbridge :**Quantity.* 450 bushels, at 1 s. 2 d. for 9 bushels, to an acre of 18 feet the perch.

In these places they lay so much stress upon lime, as to think that nothing can be done without it; every farm has a lime-kiln, and they lay it on very often; such one would apprehend must be a situation where the over use of it, if any where, would be found pernicious, but we do not find any such idea among them; it has been experienced in some counties, that excessive liming has almost ruined the soil. What is the exact nature of the land in such places? and of the lime? These are essential points, which if clearly known, might explain abundance of such mysteries, but the misfortune is, the knowledge is wanting. To make oneself master of such facts with due accuracy, would cost much time and more money; consequently are beyond my power, but it deserves the attention of those who have the opportunity.

T O W N M A N U R E.

Lynn. None used; all washed into the sea.*Bury.* Much used all round the place ordinary sorts, at from 2 s. 6 d. to 3 s. a load.

a load of 80 bushels. All expences, from 10 s. to 12 s. a load.

Bristol. No ashes used.

Salisbury. The farmers will not take the coal ashes and mortar rubbish under 3 d. or 4 d. a load.

Winchester. All used; soap-ashes 2 s. 6 d. a load.

There is no town in the kingdom of any size, but what yields a considerable quantity of manure annually; ashes of wood and coal, horse dung, the cleaning of streets, the riddance of privies, poultry, and hog dung, shambles offal, foot, and a variety of other manures, are to be met with in all towns. In most they are to be had for a very low price, in some for nothing at all; in both these it must be highly advantageous to purchase them; and those farmers who have the opportunity, and do not make use of it, surely deserve reprehension! But there are some places where the expence is much higher; in them it is to be considered how far it will answer. At what price should they buy? How many miles may they venture to go for it? These are important points, and such as might in any situation be very accurately decided by a course of experiments. The enquiry is not so much the propriety of now and then sending a waggon for a load when there

happens to be a spare day in the farm; but to know how it would answer to keep a team and a waggon going the year round, to do nothing else.

In the above minutes at *Bury*, it seems they go from four or five miles for all sorts of town manure, and pay 2 *s.* 6 *d.* or 3 *s.* a waggon load of 80 bushels for it, and reckon the whole expence 10 *s.* or 12 *s.* a load. Let us form a calculation of it, for a whole year.

		<i>l.</i>	<i>s.</i>	<i>d.</i>
Cost of a waggon,	-	25	0	0
Ditto of four horses,	-	80	0	0
Ditto harness,	-	12	0	0
		117	0	0
Interest of that sum,	-	5	17	0
Keeping, shoeing, and decline				
of value of four horses, at 15 <i>l.</i>		60	0	0
Wear of the waggon,	-	2	0	0
A man,	-	25	0	0
300 loads, at 3 <i>s.</i>	-	45	0	0
Sundry expences, at 6 <i>d.</i>	-	7	10	0
		145	7	0

From whence we find that their calculation of 10 or 12 *s.* is too high, this is not above 9 *s.* 6 *d.* Now 36 bushels are a common cart load, therefore the 300 at 80, are

are 666 loads, or about 4s. 5d. a load. This I should conceive very cheap, and that much money might be made by an intelligent sensible farmer, by such practice of keeping a team to do nothing but bring manure; provided he is at the same time rich enough to expend the necessary sums besides the standing expences of his farm. He ought not to provide less than two years expences besides the 117*l.* perhaps not less than three, or 546*l.* as bringing the manure takes a year, the first crop takes another, and that is not expected to reimburse the whole.

Whatever situation a man is in, he should calculate in this manner, and then he will at once know the sum he must have to execute the idea, and how much per cart load the manure will cost him; he cannot then fail of understanding the expediency of the measure, from comparing it with other means of procuring manure.

All around *London*, at a small distance, they have a proper idea of bringing various sorts of manures; but at the distance of 10, 12, and 18 miles, they do not by any means bring a twentieth part of the quantity which they ought; considering what rich sorts they might procure at a small expence. The *Stevenage* road is, however, an exception to this.

A calculation fimilar to the above, will shew the Expençe of carting from *London* at the distance of 17 miles.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
Interest of 117 <i>l.</i>	-	-	5	17	0
Horses,	-	-	60	0	0
Two men,	-	-	50	0	0
Wear of waggon,	-	-	2	0	0
150 loads, at 4 <i>s.</i> (coal ashes, 5 <i>s.</i> dung, 2 <i>s.</i> night soil, 3 <i>s.</i>)			30	0	0
Turnpikes, 2 <i>s.</i> 6 <i>d.</i>	-	-	18	12	6
Mens allowance, 2 <i>s.</i>	-	-	15	0	0
			181	9	6

Suppose the other three days in the week they plough each pair of horses and man half an acre, and reckon man 1 *s.* 3 *d.* an acre, and horses 2 *s.* in all 3 *s.* 3 *d.* an acre; it is 150 acres: this must be deducted

	-	-	-	24	7	6
Total for 150 loads,	-			157	2	0

333 loads coming to this sum, are 9 *s.* 5 *d.* a load. I have no idea of this answering; farmers at such a distance must therefore always go up loaded with something that will pay the expence of the journey.

At

At ten miles the account will be as under.

Interest of 117 <i>l.</i>	-	-	5	17	0
Horses,	-	-	60	0	0
One man,	-	-	25	0	0
Wear	-	-	2	0	0
300 loads, at 4 <i>s.</i>	-	-	60	0	0
Turnpikes, 2 <i>s.</i>	-	-	30	0	0
Man's allowance, 6 <i>d.</i>	-	-	7	10	0
Total	-	-	190	7	0

666 at that sum are 5 *s.* 9 *d.* a load; a price at which I apprehend it would answer.

The manure arising from burning the surface, I first met with in *Gloucestershire*: they find it extremely beneficial, if not practised too often; it cleans the soil greatly, and enriches it equally; nor do turnips, particularly, ever fail the year they pare and burn; and the expence, at which they have the operation performed, is very trifling, from 14 *s.* to 20 *s.* per acre. This method would answer greatly in many parts of the eastern counties, but they have no idea of it; except burning the sedgy turf and stubble in the *Isle of Ely*. It is, beyond all doubt, the best way of breaking up old and bad pastures, and fitting them for corn. It is a ridiculous notion, to suppose

pose it fit only for wet lands, since in the parts of *Gloucestershire* and *Wales* through which I passed, they practise it to great profit on very dry ones.

The variations I found in the article of the manner of tillage, were extremely great, and form an instance of as mistaken management as any I met with. This will appear very evident, from the following table of soils, strength, and quantity ploughed *per* day.

Improved parts of *Norfolk*.

Light turnip land :

2 Horses, 2 Acres.

Across *Suffolk* and to *Braintree* in *Essex*.

Light, loamy, and some heavy beanland :

2 Horses, 1 Acre.

At Lord *Clare's*, in *Essex*.

Loam too heavy for turnips :

2 Oxen, 1 Acre.

Between *Braintree* and *Chelmsford*.

Mixed soils, both light and heavy ; turnips and beans :

3 Horses, sometimes four, 1 Acre.

Between *Acton* and *Uxbridge*, *Middlesex*.

Both light and heavy ; turnip and beanland :

4 Horses in a line, 1 Acre.

Around *Wycomb*, in *Buckinghamshire*.

Light foil ; bears good turnips :

5 horses, often six, From $\frac{1}{2}$ to 1 acre.

About *Stoke-Church*, in *Oxfordshire*.

Chalky foil :

6 Horses, 1 Acre.

Turvill.

Stoney foil :

4 Horses, 1 Acre.

Near *Sherborne*, on *Cotswould-hills*, *Gloucestershire*.

Light, but chalky and poor :

4 Horses, 1 Acre.

From *North-Leach*, through *Gloucestershire*,
Monmouthshire, and *Glamorganshire*.

Light and middling turnip-land, &c.

Eight oxen ; never less than six ; or
four, and two horses,

From $\frac{1}{2}$ to 1 acre.

Between the *Devises* and *Salisbury*.

Light and middling ; great quantities of
turnips.

4 Horses, never less than three,
Scarce one acre.

In the neighbourhood of *Salisbury*.

Various soils, but in general light :

3 and 5 horses, 1 Acre.

Through *Hampshire*.

Light dry foil in general:

4 Horses, 1 Acre.

Between *Guilford* and *Cobham* in *Surry*.

Much sand; and light loam:

4 Horses, and often 1½ Acre, light foil,
more, 1 Acre, heavy.

4, 6, and 8 oxen,

About *Ilford*, *Essex*.

Gravel:

2 Horses, 1 Acre.

If you cast your eye lightly over this table, it will surely be evident, at once, what a waste of strength is common, thro' nine parts in ten of this tract of country. I should remark to you, that in many places where only two horses plough an acre a day, particularly in *Suffolk* and *Essex*, the foil is to the full as heavy, as in any of the other counties, wherein six and eight oxen are used: six horses I have seen at plough, upon tilt turnip-land, which was level; where the hills are steep, one horse or a yoke of oxen might reasonably be added; but the farmers in those parts use as many in a light level sand, as in a stiff and hilly loam; and what is as strange, do as little in a day.

If the excess was only in oxen, the matter would not be of such general bad
con-

consequence; but to think of innumerable horses being kept meerly in compliance with the obstinacy of the low people, (for I believe the labourers are the great patrons of the practice, and will not touch a plough without the usual number of beasts in it) is a public misfortune: to see vast tracts of the kingdom cultivated, with such useless numbers of horses, and at the same time worse managed than other heavier parts, where not half the number are used, is a very melancholy sight; and ought to influence the nobility and gentry, in those mistaken parts, to use all their power with their tenants, to make them break through such vile customs.

Even upon the hills, their method of ploughing is absurd; for they generally cut the furrows up and down the side, instead of across it; by which means, twice the strength is necessary to plough; — the goodness of the land is washed out with hasty showers; — and the crop damaged into the bargain. In more level countries, I have always observed the best husbandmen direct the ploughing across the slope of an accidental hill they may have, for reasons obvious enough amongst them; but not so plain to idle fellows, in this indolent country, who like to go in possees of men and beasts to their work; and who would insist upon a driver for

one horse, if they were brought to use but one.

In short, I venture to assert, that, in *all* the tract of country, through which I passed, *one half*, at least, of the draught cattle, taken at a medium, might be dispensed with; for though in many parts only two horses are used, yet the more than double in others would allow of half the total being deducted. You will easily conceive what a public benefit this would be. If the clamours on account of the high prices of provisions have a good foundation, they should induce these mistaken people, who plough with five or six horses, because their fathers did, (and would with fifteen, had it heretofore been the custom) to lessen their teams one half, and apply half the land, on which they raise double the quantity of oats they want, to the culture of wheat; and the ground which supports them in summer, to the fattening of such cattle as are food for *man*, instead of such as come only to the *kennel*.—I found the use of oxen rather wearing out, even in the ox counties.

These remarks remind me of the methods by which hogs are in general maintained. Those animals are of infinite importance to the nation, in yielding such vast quantities of meat: and if a scarcity of provisions in general, is now, or should be

be the case, nothing could sooner remedy it, than increasing the stock of swine; a business infinitely more easy to perform, than an increase of either sheep or large cattle. It is remarkable, that the husbandry of feeding hogs with clover, is tolerably known only across the county of *Suffolk* and a part of *Essex*, of the whole tour. They almost every where keep no more than their meer dairies would maintain, and where they were small, their malt grains and rubbish corn. Between *Woodstock* and *Witney*, a clover country, they feed their hogs in summer with beans, whereas in *Suffolk* it is common to shut a parcel of the quarter or half-grown hogs into a field of clover, if it has a pond in it, the latter end of *May*, and never take them out till *Michaelmas*; and they are found to thrive incomparably with that food alone. The whey, skim-milk, and grains, they keep for their sows and pigs, and other small hogs, too young to feed on clover alone: nor can a field of that grass be turned to so much profit by any other management. Lucky hits, may in feeding it, turn out to vast profit; but in more common, and more certain ways of managing it, either by making hay, or feeding with other cattle, the profit by hogs is found much superior. I cannot, therefore, avoid wishing, that this excellent

lent article of husbandry was more known and practised; as I am certain it would not only prove of very great use to the farmers, but yield a much greater plenty of pork, than the present smaller number of hogs can do. All the farmers I talked with, on this subject, however, gave, I could perceive, but little credit to what I told them; for their notion of clover is, that 'tis twenty to one, but it bursts and kills half the cattle turned into it. A cow or a bullock turned in, while wet with the dew, and very hungry, will now and then burst; but I never within my own experience knew it, nor *ever heard* at home, of its affecting a hog so.

The state of the clover husbandry will be seen by the following table.

Mr. Ray, at Tostock:

Use. Mows twice for hay.

Value. 2 *l.* 10 *s.* *per acre.*

Near Bury:

Use. Feed it with hogs, &c. Seed some; crops rise to 10 or 12 *l.* an acre.

Heddingham:

Use. Feed hogs and cows, &c.

Braintree to Chelmsford:

Use. Do not feed hogs on it, thinking it dangerous to them.

Lanvachers:

Use. Feed their hogs very much with it.

Alresford to Alton:

Use. Sow it with a view to feeding hogs:

Turnips are another article that demand attention; I have already mentioned the importance of hoeing; but the application and value of the crop should here be minuted.

Value, &c. of turnips.

Mr. Ray, at *Tostock*: *per* acre, by fattening
beasts in stalls, 2 *l.* 10 *s.*

Near *Bury*:

Value. Sell at 1 *l.* 10 *s.*

Turwill:

Value. Sell from 40 *s.* to 3 *l.* Average
2 *l.* 2 *s.*

Ripley:

Use. Stall feed oxen; a good acre will
fatten two middling sized beasts.

It is always necessary when the value of a turnip crop is mentioned, to ascertain what the application is: we here find that stall-feeding beasts pays 2 *l.* 10 *s.* an acre; this appears to me to be very little, on comparison with 1 *l.* 10 *s.* and 2 *l.* 2 *s.* selling prices; for 20 *s.* an acre in one case, and 8 *s.* in another, call it 14 *s.* upon an average, are by no means sufficient to pay the
X expence

expence of drawing, topping, carting, and cleaning for the oxen. The benefit to the farm may be called nearly equal, as the selling prices are for feeding on the land with sheep; and stall-feeding raises dung in the farm yard. But in this case, as in so many others, experiments accurately made, should decide what reason cannot ascertain: It is an object of very great importance; for many farmers may have the opportunity of chusing the use of the crop, and in such case, it much behooves them to make a right choice. I shall beg leave to recommend to experimental husbandmen this point, as very worthy of their attention: We want to know what is the value of a given quantity or weight of turnips fed upon the land; and also the value of them fed in stalls.

Hollow draining is an article of husbandry very little attended to in any part of this tour but *Suffolk* and *Essex*, as will appear by the following particulars.

Near Bury:

Depth. 25 to 30 inches.

Materials. Fill up with bushes.

Expence. $2\frac{1}{2}$ d. a rod labour.

Effect. Exceedingly great.

Heddingham:

Materials. Straw.

Expence. 2 d. a rod labour.

Braintree to Chelmsford:

Depth. Main ones, 2 feet,
Branches, 22 inches.

Materials. Wood and straw.

Expence. 2 *d.* a rod labour, and small beer.

Ingatestone to Chelmsford:

Depth. 22 inches.

Materials. Wood and straw.

Expence. 2 *d.* and 2½ *d.* a rod labour.

The expence of this operation we find is very inconsiderable; but the benefit of it is greater, in the opinion of the farmers who practise it, than that of any other article in country management. Flat, wet, cold clays and loams, are some of the worst soils that a man can occupy, but their very nature is changed by this draining; they become dry and mellow, are to be ploughed at seasons which without this operation would not admit a horse upon them; throw out much better crops; and manure, which takes little effect while the land is very wet, becomes of much importance when it is dry. The business is likewise easily performed, and the materials every where to be found, that it is astonishing the practice is not more general. Farmers in *Essex* assert, that the improvement of one crop very often pays all the expence.

During the whole journey, you have certainly remarked, that I was very attentive to the rent of the land: I wanted to discover the mean value of that part of the kingdom, through which I passed, and to observe what portion was waste and uncultivated. It is true, my journey was so small, compared with the whole extent of the kingdom, that few general calculations or maxims can be founded upon the result of it; but the want of perfection is no reason against using those means, which are in our power of arriving as near it as possible; persons more intelligent, and possessed of better means of smoothing difficulties, though not more active, may one day or other complete the tour of the whole kingdom upon some plan of this nature; that political arithmeticians may have a good foundation for their calculations, instead of hazarding them upon mere guess-work and conjecture. Always remember that I, in no instance, offer you these minutes as any thing perfect, but only as a slight specimen of what I wish was in my power to complete. Was this little journey extended over the rest of *England*, I should have it in my power to speak in other terms, than those I use at present.

From the sea-coast of *Norfolk*, almost across the country to *Northwold*, in the road

road to *Thetford*, the soil is generally cultivated; here and there, a mile or half a mile of sheep-walk may be found; (to the western corner, about *Snettisham*, a good deal) but in general it is but little. This line of country, upon the whole, letts, I believe, on a medium, at 6s. or 7s. an acre. From *Northwold* to *Thetford*, is an uncultivated tract of sheep-walk.

From *Thetford* to *Ingham*, in general, uncultivated: then to *Bury*, light land, but cultivated; mean rent about 3s. 6d. or 4s. an acre. Here we have reckoned one line of uncultivated land, which is near 16 miles across. Another line across it, is from *Culford* to *Brandon*; ten miles. Another from *Newmarket* to *Brandon*, eighteen*. Upon the whole, I believe, there is a square of about twenty miles of uncultivated sheep-walks and warrens.

From *Bury* by *Hadleigh*, to *Sudbury*, and to *Braintree*, the soil is good, and well cultivated; and letts, upon a medium, at about 12s. or 13s. per acre.

From *Braintree* to *Chelmsford*, and to *Billericay*, it is yet better; letts for about

X 3

16s.

* There are very extensive tracts of uncultivated land that break into cultivated parts besides the above mentioned, and perhaps of treble the quantity, from *Bournbridge* to *Newmarket*; and witness the adjoining fen.

16 s. and from thence down to *Tilbury* fort, at about 10 s.

The mean rent, therefore, across the county of *Norfolk*, and a part of *Suffolk*, as far as *Bury*, is about 5 s. or 5 s. 6 d. an acre. This is a line of 70 miles.

From *Bury* across the rest of *Suffolk* and all *Essex*, to *Tilbury* fort, which is 70 miles more, the mean rent is about 13 s. 6 d. or 14 s. an acre.

About *Gravesend*, in *Kent*, some at 8 s. and others at 1 l. and 1 l. 10 s. Between *Dartford* and *Shooter's hill*, at 20 s. Nearer *London*, and before you come to the gardens, it runs up to 2 l. From *London* to *Barnet*, all grass; letts from 40 s. to 3 l. From *Barnet* to the *Mimms*, about 12 s. From *Guilford* to *London*, 30 miles, about 12 s. From *London* to *Burntwood*, 17 miles, 35 s. * From *London*, another way, to *Uxbridge*, 30 s.

Here is a tract of country around *London*, five several ways out of it, and from 20 to 30 miles distance; the medium of rents is about 30 s. an acre. But I believe if a circle of 30 miles was taken, and all its contents, barren land, forests and all, the mean rent would not amount to near

20 s.

* Reckoned by the *Stratford* road, and not the *Forest*.

20 s. which is a scandalous circumstance to the agriculture of that proud neighbourhood; every spot of which is within reach of more manures, than any three cities in *Europe* can boast.

From *Uxbridge* to *Stoken Church*, which crosses the county of *Buckingham* 27 miles, the mean rent is about 10 s. an acre.

From *Stoken Church* to *Tetsford*, 10 s. From *Tetsford* to *Oxford*, inclosed 20 s. open 9 s. From *Oxford* to *Witney*, about 15 s. From thence to *North Leach*, 7 s. This line across *Oxfordshire*, about 40 miles. I believe the medium will be found about 11 s. considering how small a part is inclosed.

From *North Leach* to *Crickly-hill*, about 5 s. From thence to *Gloucester*, 16 s. From thence to *Newnham*, 12 s. From thence to *Chepstow*, 14 s. This line extends 50 miles through *Gloucestershire*, and the medium rent I calculate at 10 s. 6 d. or 11 s.

From *Chepstow* to *Newport*, 14 s. From *Newport* to *Bridgend*, 12 s. This is a line of about 50 miles. Medium, 12 s. 3 d. or 12 s. 6 d.

From the passage to *Bristol*, 25 s. From *Bristol* to *Bath*, 7 s. From *Bath* to the *Devizes*, 20 s. This cut through *Somersetshire*, and the rich part of *Wiltshire*, for 40 miles, lets on a medium at 19 s.

From the *Devises* to *Salisbury*, mostly sheep-walk, but including the adjoining farms, 22 miles, 5 s.

From *Salisbury* to *Winchester*, 12 s. About *Crux - Easton*, 9 s. From *Winchester* to *Alresford*, 9 s. From thence to *Alton*, 7 s. 6 d. From thence to *Farnham*, 17 s. This line extends across *Hampshire* near 50 miles, and I reckon the medium, 12 s.

From *Farnham* to *Guilford*, about 8 s. The circle around *London*, before sketched, concludes it.

The Tour lies through about 600 miles of various country: the following little summary will assist in forming a general medium:

	Miles.	l.	s.	d.
<i>Norfolk</i> to <i>Bury</i> in <i>Suffolk</i> ,	70—0	5	0	
<i>Suffolk</i> and <i>Essex</i> , - -	70—0	13	6	
Across the <i>London</i> circle, -	40—1	10	0	
<i>Buckinghamshire</i> , - -	27—0	10	0	
<i>Oxfordshire</i> , - - - -	40—0	11	0	
<i>Gloucestershire</i> , - - -	50—0	10	6	
<i>Monmouth</i> and <i>Glamorgan-</i> <i>shires</i> , - - - - -	50—0	12	6	
<i>Somersetshire</i> , and part of				
<i>Wiltshire</i> , - - - -	40—0	19	0	
<i>Wiltshire</i> , - - - -	22—0	5	0	
<i>Hampshire</i> , - - - -	50—0	12	0	

I have calculated these several proportions, and believe the general medium is 12 s. 7 d. *per* acre. I must repeat again, That you are not to expect an absolute accuracy in such a sketch as this; mistakes, doubtless, there will be, but I apprehend these mediums are *near* the truth.

Through the preceding pages the particulars of several farms are given, not sufficiently numerous to form important conclusions upon, but such as should not be totally overlooked. I shall therefore add a slight table of their particulars thrown into columns under their respective heads.

N ^o .	Acres.	Rent.	Arable	Grass.	Wheat	Spring Corn.	Tur- nips.
		£.					
1.—	1100	275	600	500	100	300	200
2.—	2000						
		s.					
3.—	250	12 per ac.	170	80			
4.—	90	60 £.	90				
5.—	130	100					
6.—	5000	2500					
		s.					
7.—	100	8 per acre.	100				
8.—		30 £.					
9.—		50					
10.—	1500	500					
11.—	400	160					
		s.					
12.—	250	15 per ac.	250				
13.—	300	200 £.	240	60			
14.—	200	200	200				
15.—	250	100	230	20			

N ^o .	Oxen.	Cows.	Sheep.	Fatt. cattle.	Plows	Horses	Serv- ants.	Labo- rers.
1.—		20	900		5	30	6	6
2.—		24	900			45	9	0
3.—		25	60			10	4	5
4.—			30			5	2	3
5.—		30	120			12	3	1
6.—						102		
7.—	12					5	5	5
8.—	4							
9.—	8					2		
10.—						20	20	
11.—			220			12	7	3
12.—			120			9	6	5
13.—	8	30	300	9		12	6	10
14.—			200			10	4	6
15.—		20	60			8	6	3

- 280 horses kept on 11570 acres, which is 41 to each horse.
- 89 horses kept on 1880 acres of arable land, which is 21 to each horse.
- 2910 sheep kept on 4970 acres of land, which is rather better than an acre and half to each sheep.
- 149 cows kept on 4030 acres, which is 27 *per* cow; above 3000 acres, however, are light lands.
- 105 cows kept on 930 acres, in rich soils, which is 9 *per* cow.
- 78 servants kept on 6570 acres, which is 84 *per* head.
- 35 ditto on 4600 acres of light land, 3 farms, which is 131 *per* head.
- 43 kept on 1970 acres, which is 46 *per* head.
- 47 labourers kept on 3070 acres, which is 65 *per* head.
- 6 ditto kept on 1100 acres (one farm) which is 183 *per* head.
- 41 kept on 1970 acres, which is 48 *per* head.
- 96 servants and labourers kept on 3070 acres, which is 32 *per* head.
- 69 servants kept on farms to the amount of 1973 *l.* of rental, or 28 *l.* *per* head.
- 47 labourers kept on a rental of 1473 *l.* which is 31 *l.* *per* head.
- 96 servants and labourers kept on a rental of 1473 *l.* which is 15 *l.* *per* head.

These 96 men (49 servants and 47 labourers) are kept on ten farms. Let us conjecture the whole population of these farms.

Servants unmarried,	-	49
Labourers,	- - - -	47
Suppose three-fourths of the latter married, and to have each a wife and three children living, the number to be added will be	}	132
Farmers,	- - - -	10
Suppose three-fourths married, and children as before,	}	28
We may suppose two maid-servants to be kept on a medium by each farm,	}	20
Total *,—		286

This number divided among 3070 acres is ten acres *per* head. Divided in a rental of 1473 *l.* is 5 *l.* *per* head.

I forbear extending these proportions to the whole kingdom, because the Tour by no means comprehends a sufficient variety of soils and other circumstances to justify the founding general maxims upon.

Roads

* Much extra labour is used by all in hay and corn harvests, &c. &c. but none of that is taken into the account, nor is it susceptible of calculation.

Roads deserve some attention. I chiefly travelled upon turnpikes ; of all which, that from *Salisbury*, to four miles the other side of *Rumsey*, towards *Winchester*, is, without exception, the finest I ever saw. The trustees of that road, highly deserve all the praise that can be given, by every one who travels it, for their excellent management : to management the goodness of it must be owing ; for fine as their materials are, yet I have in other counties met with as fine ; but never with any that were so firmly united, and kept so totally free from loose stones, rutts and water ; and, when I add water, let me observe, that it is not by that vile custom of cutting grips for it to run off, to the dislocation of one's bones in crossing them, and to the utter destruction of all common beauty resulting from levelness ; but by rendering the surface so immoveably firm, that carriages make no holes for it to settle in ; and having every where a gentle fall, it runs immediately off. To conclude the whole, it is every where broad enough for three carriages to pass each other ; and lying in straight lines, with an even edge of grass the whole way, it has more the appearance of an elegant gravel walk, than of an high-road.

Next to this uncommon road, the great north one to *Barnet*, I think, must be ranked. Then the *Kentish* one : and the

others to *Chelmsford* and *Uxbridge* succeed. Next I rank the 18 miles of finished road, from *Cowbridge* in *Glamorganshire*, to six miles this side of *Cardiff*. As to all the rest, it is a prostitution of language to call them turnpikes; I rank them nearly in the same class, with the dark lanes from *Bil-lericay* to *Tilbury* fort. Among the bad ones, however, some parts of the road from *Tetsford* to *Gloucester*, are much better than the unmended parts from *Gloucester* to the good road above-mentioned, on this side of *Cardiff*. The latter is all terrible; but then it is a great extenuation, to observe that they have been at work but two years. Much more to be condemned, is the execrable muddy road from *Bury* to *Sudbury* in *Suffolk*; in which I was forced to move as slow as in any unmended lane in *Wales*: For ponds of liquid dirt, and a scattering of loose flints, just sufficient to lame every horse that moves near them, with the addition of cutting vile grips across the road, under pretence of letting water off, but without the effect*,

* The hacknied argument, that the water must be carried off, is of some force with regard to the bye roads, wherein the rutts are single deep channels, but of none with turnpikes; for it is nonsense to pretend to call a road a turnpike one, that lies so low in the center, or has rutts deep enough to require grips to let the water off; and unless the rutts are single and deep,

all together render, at least, 12 out of these 16 miles, as infamous a turnpike as ever was travelled.—The road likewise from *Chelmsford* to *Hedingham*, though not so bad, is something in the same stile; which is the more disagreeable, as it used to be much better. As to *Norfolk* and her *natural roads*, the boast of the inhabitants, who repeat with vanity the saying of *Charles II.*; all I have to remark is, that I know not one mile of excellent road in the whole county. One furlong upon the *Salisbury* turnpike, above-mentioned, is worth all that nature or art has done for travellers, in the whole county of *Norfolk*. Bad, however, as all natural roads are, part of the *Norfolk* ones, it must be allowed, exceed the *Suffolk* turnpike.

As to the management of timber, I have only to say, that from *Gravesend*, in *Kent*, across the kingdom, and down to *Bridgend* in *Glamorganshire*, and then back again to *London* and *Chelmsford*, the trees are all (with some few exceptions in *Hampshire*) stripped up like May-poles, which they

deep, as in cross roads, grips may be cut for ever without effect; for where there is so much thick mud, they are eternally filling up again. The only way to lay a road dry, is to have every where a gentle slope, and *no rutts*; for without these circumstances are effected, the gates may take money from travellers, but will never give tolerable roads in return.

they nearly resemble, when fresh stripped, with only a little tuft of leaves on the top. This is a most barbarous custom; destroys the beauty of the country, and is absolutely ruinous to timber. *Norfolk, Suffolk,* and a part of *Essex*, are, however, exempt from this detestable practice.

The price of implements should not be forgotten in this general review, for they form a considerable part of the farmer's expences, all which should be accurately known throughout the kingdom, for reasons too numerous to explain here.

	<i>Waggons.</i>			<i>Carts.</i>			<i>Ploughs.</i>			<i>Harrows.</i>		
	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Near <i>Bury</i> ,	25	0	0	12	0	0	1	10	0	2	0	0
<i>Braintree</i> to												
<i>Chelmsford</i> ,	20	0	0	6	6	0	1	10	0			
<i>Crickly-Hill</i> ,	18	0	0									
<i>Lanvachers</i> ,	9	0	0	4	0	0	0	9	0	0	14	6
<i>Devizes</i> to												
<i>Salisbury</i> ,	20	0	0	10	0	0	0	18	0	0	7	6
<i>Salisbury</i> to												
<i>Bruchalk</i> ,	20	0	0	10	0	0	0	18	0	0	7	6
<i>Ingatestone</i> to												
<i>Chelmsford</i> ,	25	0	0	12	0	0	1	10	0	2	5	0
	137	0	0	54	6	0	6	15	0	5	14	6
Average,	19	11	0	9	1	0	1	2	6	1	2	10

These rates vary from the prices of timber, iron, and workmanship, but that is no reason against our discovering the truth;

truth ; for there would be a thousand most valuable points of knowledge gained, if we could determine the average expences of the nation's husbandry ; and what crops they were occasioned by, that is, grafs or arable. It can only be by such particulars, that we can ever be able to decide what ought to be the price of the earth's productions ; that the grower may have a reasonable profit, and the consumer not be oppressed.

You will now permit me to examine the prices of provisions and labour ; which I have hitherto only minuted, without explaining the reasons why I was so particular upon these articles. In the first place, I shall take the article bread.

In *Kent*, 12 miles from *London* ; in *Middlesex*, 12 miles ; in *Surry*, 10 miles ; in *Hertfordshire*, 16 ; in *Essex*, 6. At all these distances, bread was 2 *d.* per lb. except in *Essex*, where I found it 1 $\frac{3}{4}$ *d.* At *London*, it is 2 *d.* Upon the whole it may be called 2 *d.* with the deduction of a very slight fraction.

As to the rest of the kingdom, I found it every where the same, except twice ; once in *Hampshire* 1 $\frac{1}{2}$ *d.* and once in *Essex* rather more than 1 $\frac{1}{2}$ *d.* But to balance this, near *Gloucester* I found it more than 2 *d.* This will appear by the following table at large.

B R E A D.

Norfolk,	-	-	2 d. per lb,
Near Bury in Suffolk,			2
Hedingham,	-	-	2
Braintree,	-	-	2
Braintree to Chelmsford,			1 $\frac{3}{4}$
Bexley,	-	-	2
Hays,	-	-	2
Crickley-Hill,		-	2 $\frac{1}{8}$
Gloucester,	-	-	2
Gloucester to Newnham,			2
Newnham to Chepstow,	-		2
Lanvachers,	-	-	2
Newport,	-	-	2
Cowbridge,	-	-	2
Bristol to Bath,	-	-	2
Melksham,	-	-	2
Devizes to Salisbury,	-		2
Salisbury,	-	-	1 $\frac{1}{2}$
Winchester,	-	-	2 $\frac{1}{2}$
Rupley,	-	-	1 $\frac{1}{2}$
Alton to Farnham,	1 s.	3 d.	a peck loaf.
Ripley,	-	-	2 d.
Esber,	-	-	2
Ilford,	-	-	1 $\frac{3}{4}$
Ingatestone to Chelmsford,			1 $\frac{1}{2}$ $\frac{1}{8}$
Average,	-		2

I was not surprized to find this article upon a general level; for wheat being a commodity easily transported, will certainly

tainly be eat at *London*, as cheap as in the extremities of the kingdom. Indeed I knew not how to reconcile the accounts I met with in news-papers, of wheat selling so much dearer in the western markets, than the eastern ones, and at places where the measure was only nine gallons ; for I have often observed 10, 15, and even 20 s. a quarter difference between the *Norfolk*, and the west of *England* prices, whereas bread is of the same price every where. There must be some unknown circumstances or mistakes to occasion such a seeming variation.

Wheat, as I before observed, is a commodity that may be moved with the greatest ease, but this is not the case with butter; the first, therefore, does not shew the influence of the capital, but the latter does in a very striking manner, of which the following table will convince you.

<i>Places.</i>	<i>Distance from London.</i>			<i>Prices.</i>
<i>Norfolk,</i>	-	-	120 M.	- 6d.
<i>Suffolk,</i>	-	-	70	- - 6
<i>Essex,</i> about <i>Hedingham,</i>			55	- - 6½
— about <i>Braintree,</i>			42	- - 6
— <i>Billericay,</i>	-		20	- - 8
<i>Kent,</i> between <i>Dartford</i> and				
<i>Shooter's-bill,</i>	-		12	- - 8
<i>Middlesex,</i> <i>Hays,</i>	-		12	- - 8
<i>Oxfordshire,</i> <i>Stoken Church,</i>			40	- - 7
<i>Oxfordshire,</i> <i>Witney,</i> about			60	- - 6

Places.	Distance from London.	Prices.
<i>Gloucester,</i>	- - 107 M.	- 5 $\frac{1}{6}$ d.
<i>Monmouthshire, Newport,</i>	153 - -	5
<i>Glamorganshire, Cowbridge,</i>	175 - -	5

I should, however, remark, that at *Newnham*, in *Gloucestershire*, 125, it was 6 $\frac{1}{2}$ d. and between *Chepstow* and *Newport* 6 d. which variations I attributed to the *Bristol* market boats constantly buying up all sorts of provisions. Across the kingdom, therefore, we find the prices of butter vary, in proportion to the distance of *London*: the return by another road will prove it equally strong:

Places.	Distance from London.	Prices.
About <i>Bath</i> , <i>Bristol</i> , and <i>Melksham</i> , I found the	M.	d.
medium,	- 110 - -	5 $\frac{1}{2}$
<i>Wiltshire</i> , between <i>Devizes</i> and <i>Salisbury</i> ,	- 85 - -	7 $\frac{1}{2}$

N. B. This variation is evidently owing to such a vast tract of country being sheep-walk.

<i>Salisbury</i> ,	- - 83 - -	6 $\frac{1}{2}$
<i>Hampshire</i> , about	- 70 - -	6 $\frac{1}{2}$
<i>Surry</i> , near <i>Farnham</i> , about	40 - -	7 $\frac{1}{2}$

and continues so to the near neighbourhood of *London*, except a fall of $\frac{1}{2}$ d. once near *Ripley*.

<i>Essex</i> , between <i>Ingatestone</i> and <i>Chelmsford</i> ,	- 26 - -	8 $\frac{1}{2}$
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The excess of this halfpenny, I believe, held but a little time; in general, 8 *d.*

You must certainly allow, that the rise and fall of these prices, in proportion to the distance from the capital, are too regular to be the effect of soil, or accident; they are palpably caused by the *London* markets; since if goodness of soil, or quantity of grass operated so strongly, it should *sink* instead of *raise* the *London* prices: The difference between that city and the cheap parts of the kingdom, is 3 *d.* *per lb.* which is very considerable, much more than I apprehended. The variation will appear at one view in the following little table:

<i>London</i> , and 20 miles round,	<i>d.</i>
mean price, - - -	8
From 20 miles to 60 -	6 $\frac{3}{4}$
From 60 miles to 110 -	6
From 110 miles to 170 -	5 $\frac{1}{2}$

And the general medium is 6 $\frac{1}{2}$; but if the proportion of numbers who eat, is taken in, it will be higher.—In excuse for being thus particular, in relation to butter, I must plead, that it is the only commodity which cannot be transported from a distance to *London*; and consequently it shews the proportional influence of that capital, better than any other article. I should however remark, that butter is much dearer, even in the most distant counties,
if

if any other articles are commonly sent to London; for the lessening the quantity of any one species of provisions, will somewhat increase the price of every other.

The general medium of cheese through the whole journey, is $3\frac{1}{2}$ d. per lb.

As to butcher's meat, some difference will be found between the capital and the distant parts of the kingdom; as the very expence of driving beasts must occasion some. I think the best way of displaying the prices, will be to give the medium of mutton, beef, and veal.

Places.	Distance. Miles.	Prices.			Med. d.
		Mutt. d.	Beef. d.	Veal. d.	
In Norfolk,	100 to 120	4	4	$3\frac{1}{2}$	$3\frac{3}{4}$
Suffolk,	- 70	4	$3\frac{1}{2}$	4	$3\frac{3}{4}$
Essex, Heddingham,	55	$4\frac{1}{2}$	4	4	$4\frac{1}{6}$
— Braintree,	42	4	4	$4\frac{1}{2}$	$4\frac{1}{6}$
— Billericay,	20	5	$4\frac{1}{2}$	5	$4\frac{3}{4}$
Kent, Bexley,	12	5	$4\frac{1}{2}$	5	$4\frac{3}{4}$
Middlesex, Hayes,	12	5	5	5	5
Oxfordshire, Stoken Church,	- 40	$4\frac{1}{2}$	4	$4\frac{1}{2}$	$4\frac{1}{4}$
— Tetsford,	45	$4\frac{1}{2}$	4	0	$4\frac{1}{2}$
— Witney,	65	$4\frac{1}{4}$	$4\frac{1}{4}$	$3\frac{1}{2}$	4
Gloucestershire, Sher- born,	- 78	4	4	0	4
Gloucester,	- 107	4	$3\frac{3}{4}$	3	$3\frac{1}{2}$
Newnham,	- 123	4	4	0	4
Monmouthshire, Chep- stow,	- 135	4	$3\frac{1}{2}$	3	$3\frac{1}{2}$
— Newport,	151	$3\frac{1}{2}$	4	2	$3\frac{1}{6}$
— Cowbridge,	175	$3\frac{3}{4}$	4	3	$3\frac{1}{2}$
	Y 4				Be.

Places.	Distance. Miles.	Prices.			Med.
		Mutt. d.	Beef. d.	Veal. d.	
Between Bristol and Bath, -	112	4	4	3½	3½
Wiltshire, Melksham, -	96	4	4	4	4
----- Devizes to Salisbury, -	85	4	4	0	4
About Salisbury and Rumsey, -	80	4½	3	2	3½
Hampshire, between Rumsey and Winchester, -	75	4	4	3½	3½
Hampshire, Alresford to Farnham, -	50	4½	4	4	4½
Surry, between Guildford and Ripley, -	26	4½	4	0	4½
Essex, Ilford, -	6	4¾	4	5	4½
----- between Ingatestone and Chelmsford, - -	25	4½	4	4½	4½

In this article of butcher's meat, you see there is no such variation as in butter, except in veal, which is owing to the very same reason; the not being able to drive calves from a great distance to *London*. But in mutton and beef the difference between the capital and near 200 miles from it is but little. But this matter will appear in the clearest light, by the following tables of general mediums :

London, and 20	} mean price	} 4¾ d.
miles around		
From 20 to 60,	ditto,	4⅛
		From

From 60 to 110,	ditto,	$3\frac{3}{4} d.$
From 110 to 170,	ditto,	$3\frac{1}{2}$

Mediums of Mutton and Beef.

<i>London</i> , and 20 miles,	-	$4\frac{3}{4} d.$
From 20 to 60,	- -	$4\frac{1}{8}$
From 60 to 110,	- -	$4\frac{1}{8}$
From 110 to 170,	- -	$3\frac{3}{4}$

From hence it appears, that the difference between *London* and the cheapest places of this journey, in the price of meat in general, is $1\frac{1}{4} d.$ and of mutton and beef only $1 d.$ If we consider the expences of driving, and what is more, the waste of flesh upon the road, we shall not be surprised at this difference. The general medium of the three meats, is $4 d.$

Of only mutton and beef, $4\frac{1}{2} d.$

In case these prices should be extended, by supposition, to the whole kingdom, it is proper to remark; that in respect of the influence of great cities, I was never out of it. *London* affects the price of meat every where; and though veal and butter were very cheap in *Wales*, yet the prices of them were by no means those which arose from a home consumption alone, as I plainly perceived by the great quantities of provisions bought up in all the little ports of the *Severn*, by the *Bristol* market boats. As I drove from *Cardiff*, I met such numbers of butchers, with calves, that

that I inquired if that little town could consume such a quantity of veal ; (it was market-day) they told me the boats were ready in the river to buy for *Bristol*. And this was doubtless the case with butter, &c. Had my private business then suffered me to penetrate further into *Wales*, beyond the course of these boats, and where no turnpike road exists, I have no doubt but I should have met with great changes in every thing, and such as would have given rise to some very important reflections. I found all the sensible people attributed the dearness of their country to the turnpike roads ; and reason speaks the truth of their opinion. I can imagine many tracts of country, and there are certainly such in this kingdom, wherein provisions cannot be dear.

It is not at all to my purpose here, to enter into a disquisition, whether the prices of provisions had better be high or low ; all I shall say on that subject is, they had better be excessive high than fluctuating. If high prices are a misfortune, I am sure they are not so great a one as fluctuating prices. Whatever attempts should therefore be made to lower the present prices, it ought either to be done in such a manner as to ensure regularity, or suffer them to take their own course.

Upon

Upon the whole, we find provisions to be, on a medium ;

Bread,	-	-	2 d. per lb.
Butter,	-	-	6 $\frac{1}{2}$
Cheese,	-	-	3 $\frac{1}{2}$
Meat,	-	-	4

In respect to other articles of a poor man's house-keeping, I was not so particular in my inquiries as I should be, was I to take such another journey; however, something may be gained from the articles of candles and firing :

CANDLES, per lb.			COALS, per bushel.		
		d.			s. d.
In Norfolk,	-	7	At Lynn,	-	0 7
In Suffolk,	-	7	Coals laid in,	-	1 0
Essex, Heddingham,		7	— Ditto,	-	0 11
— Braintree to					
Chelmsford,	-	7 $\frac{1}{2}$			
Gloucester,	-	6	— — —	0	3
In Wales,	-	6 $\frac{1}{2}$	As much as six oxen		
			can draw, 3 s.		
Hampshire,	-	7	— — —	0	9
			Peat, 10 s. a waggon		
			load.		
Essex, Ilford,	-	7 $\frac{1}{2}$	— — —	0	11
— Ingatestone to					
Chelmsford,		7 $\frac{1}{2}$	— — —	0	11

I should not lay so imperfect a table before you, had not the few prices it contains been those of counties at a great distance

tance from each other, by which means, a medium is the more accurately drawn.

Day labour I shall lay before you in the same manner I have done provisions; but as the prices vary in summer, winter, &c. I think the only way to come at a regular proportion, is to take the medium of winter, spring, and harvest, which three prices are every where specified in the Tour; and will, I believe, give nearly the real mean amount of day-labour the whole year; but then, as victuals and drink, and even board are given in some places, especially at harvest, some estimation must be fixed upon for this. Ale and beer are in many places, within my knowledge, regularly reckoned at 2*d.* in the shilling; however, when I come to some places, where cyder was drank in common, I shall esteem it at 1*d.* and small-beer 1*d.* and a dinner I shall every where value at 6*d.* and a day's complete board at 10*d.* beside drink. I am sensible, 6*d.* is in many places a large allowance for a dinner; but I likewise know several others, where 1*s.* 6*d.* a head would not pay the harvest ones; so that on the whole, 6*d.* cannot be far from the general medium. I shall take no regular notice of the prices by the piece, unless it be at places where little day-work is done.

The winter-price I reckon, from the most general observations I have made, to

last from *October* to *March*, both inclusive. The spring ditto, from *April* to the third week in *August*, both inclusive, and harvest from the last week to the end of *September*. The time of beginning and ending harvest may vary, but it every where lasts, on a medium, five weeks.

Winter is, therefore, 26 weeks.

Spring, - - - 21

Harvest, - - - 5

Pay per Week.

Counties and Places.	Dist. Miles.	Wint.		Sum.		Harv.		Medium	
		s.	d.	s.	d.	s.	d.	s.	d.
Norfolk, the improved parts,	100	6	0	7	0	17	10	7	6
Suffolk, between Bury and Hadleigh,	65	6	6	8	0	11	6	7	7
Essex, Hedingham,	55	6	6	* 8	6	14	0	8	0
Between Braintree and Chelmsford,	40	7	0	† 8	6	14	0	8	5
Kent, Bexley,	12	10	6	10	6	19	0	11	3
Middlesex, Barnet	10	10	6	‡ 11	6	17	6	11	7
— Hays,	12	9	9	‡ 11	6	17	6	11	2
Buckinghamshire, High Wycomb,	30	6	0	9	0	17	3	8	5
Oxfordshire, Stoken Church,	40	6	0	6	0	12	0	7	1

* Hay time 10 s. but as it lasts not so long as spring division, I call it 8 s. 6 d. They make great earnings at hop-work.

† Ditto, 9 s. 6 d. therefore call it 8 s. 6 d.

‡ Ditto, 14 s. but lasts so little a time, call it 11 s. 6 d.

|| Ditto, 12 s. therefore say 9 s.

Pay per Week.

Counties and Places.	Dist. Miles.	Wint. s. d.	Sum. s. d.	Harv. s. d.	Medium s. d.
Between Tetsford and Oxford,	45	6 0	*7 6	12 0	7 2
Between Woodstock and Witney,	65	6 0	6 6	9 0	6 6
Gloucestershire, Sherborn,	78	4 6	6 0	10 0	5 5
Shipton,	85	+6 0	7 3†	10 0	6 10
Crickley,	98	4 6	5 0	10 0	5 2
Between Gloucestershire and Newnham,	115	5 6	§6 6	12 0	6 6
Bet. ditto and Chepstow,	130	6 0	7 0	12 0	6 10
Monmouthshire, between ditto and Newport,	140	5 5	6 6	11 6	6 5
Newport,	145	5 0	5 0	¶ 8 0	5 2
Glamorganshire, Cowbridge,	175	6 0	6 0	6 0	6 0
Bet. Bri- stol and Bath,	112	6 0	7 0	+ 8 6	6 7
Wiltshire, Melk- sham,	96	5 0	7 3	8 6	6 2
Bet. De- vizes and Salis- bury,	85	5 0	5 0	10 0	5 3
Bet. ditto and Rumsey,	80	5 6	6 9	10 6	6 5

• Nine shillings in hay, say therefore 7 s. 6 d.

+ Never used before last winter to be more than 4 s. 6 d.

† Nine shillings in mowing-time, and 7 s. in spring,
so I reckon the medium 7 s. 3 d.

|| Six shillings in mowing-time.

§ In hay-time, 9 s.

¶ But 5 s. but mowing heightens it.

+ Only 7 s. but mowing and reaping raise it,

Pay per Week.

Counties and Places.	Dist. Miles.	Wint. s. d.	Sum. s. d.	Harv. s. d.	Medium s. d.
Hampshire, bet. ditto and Win- chester,	75	6 0	6 6	10 0	6 6
— Bet. Alres- ford and Alton,	55	7 0	7 0	* 8 0	7 1
— Bet. ditto and Farnham,	45	6 0	6 0	16 0	7 0
Surry, between Guilford and Ripley,	28	7 0	8 0	13 6	8 0
— About King- stone,	12	8 0	12 0	18 0	10 0
Essex, Ilford,	6	8 6	10 0	17 6	9 11
— Between In- gatestone and Chelmsford,	26	7 0	8 0	15 6	8 6

These mediums, according to the distance from the capital, are as follow :

Twenty miles around London,	s.	d.
mean price,	-	-
From 20 to 60,	10	9
From 60 to 110,	7	8
From 110 to 170,	6	4
General medium,	7 s. 9 d.	per week.

One remark I should make, which is, that throughout the whole Tour, the labourers

* In this and other instances the daily pay is the same as in winter; but then the mowing and reaping being done by the piece, I state the proportion as exactly as I am able.

bourers earn in the year more than the above sums, for I every where found that much work was done by the piece. Now it is well known they always earn more in that manner than at daily wages; which in the year makes a very considerable difference: within the extent of my experience and information, this difference amounts to a full fourth, the proportion taken of all sorts of work; for if you turn over the preceding sheets, you will find that the prices of the piece-work are, in general, out of proportion to the daily prices; they are so much higher: and this is the case, not with any particular county or place, but universally. No labourers will take work by the piece, without a certainty of earning more than the common pay, in return for working so much harder for themselves than they do for their masters.

In my own opinion, this circumstance will more than raise the general medium 7*s.* 9*d.* to 8*s.*

You see, Sir, by these tables, that the influence of the capital, in raising the price of labour, is prodigious; the difference between the extremes, being no less than 4*s.* 6*d.* or near three-fourths of the lowest country price. Nor can any the least reason be given for this. At *London* the bread is eat as cheap as any where, and
meat

meat only 1 *d.* *per* lb. dearer than the cheapest part of the country; the price of provisions, therefore, has nothing to do with labour. The vast populousness of *London* and its neighbourhood, ought to lower the price of labour; and did not the debauched life of its inhabitants occasion them to be more idle than in the country, it would have that effect: but the very maxims and principles upon which life is founded in great cities, are the most powerful of all enemies to common industry.

But it is not only on a general view, that a want of proportion between labour and provisions is found; for it is the same at particular places; where provisions are the cheapest, it will not be found that labour is the same.

Upon comparing the prices of both, they will be found so various, that chance alone seems to guide them: this random variation, however, has nothing to do with the rise of prices, the nearer you approach *London*; as it is regular, and has an evident and powerful cause.

Politicians are so clear in their opinion, that low prices of labour are of the utmost importance to all trading states; that I must be allowed to express my amazement, at the legislature's suffering the capital to in-

Z

crease

crease in the prodigious manner it has done of late. If *London*, as it is calculated, contains one sixth part of the nation; one sixth part of the nation's labour is thereby raised near *three fourths* of its price; and another vast rise, is to the distance of near 100 miles; and this amounts to *a third*. All this is upon a supposition, that the influence of the capital does not reach 175 miles; which there is no reason to believe the case; but as that was the furthest point of the Tour, and of course labour the cheapest, it is taken as the uninfluenced mean: was it extended to a much greater distance, this influence of *London* would appear yet stronger. If a low price of labour is a public *benefit*, sure the size of *London* is a public *evil*!—I wish these inquiries were regularly extended, even to the Highlands of *Scotland* and the western isles; such a journey would afford plenty of matter for enlarging upon these subjects.—I shall now pass on to manufacturers. Of their earnings I shall give you a little sketch:

<i>Lavenham</i> , fays and calimancoes,	s.	d.
earn <i>per</i> week, on a medium,		
the year round, - -	5	9
<i>Sudbury</i> , burying-crape, &c. -	7	6
<i>Hedingham</i> , bays and fays, -	7	0
<i>Braintree</i> , fays and druggets, -	6	0

	s.	d.
<i>Witney</i> , piece-goods and blankets,	11	0
<i>Gloucester</i> , pins, - -	11	0
<i>Wilton</i> , carpets, - -	11	0
<i>Salisbury</i> , flannels and linseys,	8	0
<i>Rumsey</i> , ratinets, - -	9	0
Wool-combers every where on an average, - - -	13	0
Medium earnings in the East of England; from <i>Lavenham</i> to <i>Braintree</i> inclusive, - -	6	6
In the West, at <i>Witney</i> and <i>Gloucester</i> , - - - -	11	0
In the South, <i>Wilton</i> , <i>Salisbury</i> , and <i>Rumsey</i> , - - -	9	4

Medium of labourers pay in the East, about the above manufacturing towns and neighbourhoods, taken from the table, page 333, - - -	8	0
Ditto, around those in the West,	5	10
Ditto, those in the South, -	6	0

	s.	d.
General medium of manufacturers,	8	5
Ditto, of labourers, - -	7	9
The former superior by - -	0	8

N. B. The *Woodstock* manufacturers earn infinitely more than any; but I leave them

them out, because their number is very small, and their work a matter of mere elegance.

You observe that I have contrasted the earnings of labourers and manufacturers in the East, West, and South of *England*. I did this for a reason which I shall now explain.

In the West of *England*, the late riots on account of the high prices of provisions, ran higher and were more violent than in any part of the kingdom. As I passed through these parts, I made many inquiries concerning the rioters, and found that they in general consisted of manufacturers;—that the labourers among them were infligated by the manufacturers, who were not only infinitely the most numerous but were those who *began*.

I was not at all surprized at this information; which, from its generality, I have great reason to believe true. In the South of *England* likewise, about the above named manufacturing towns, was much rioting; and also by manufacturers, few labourers among them. In the East too, was a riot, particularly at *Long Melford*, &c. between *Sudbury* and *Lavenham*; this was composed of labourers, remarkably so; for they gathered like a snow-ball, at almost every farm-yard they came to.

Now, Sir, remark the comparisons
above

above drawn up, between the manufacturers and labourers pay ;—there you will find, that in the West and South of *England*, the manufacturers earn nine and eleven shillings ; the labourers five and six shillings. The former were those who rioted.

In the East the manufacturers earn 6 s. 6 d. the labourers 8 s. The latter were those who rioted.

Very far is it from my thoughts, to assert or hint, that our poor are too well paid—I am sensible that there is much wretchedness amongst some of them, which ought to be alleviated ; but I must at the same time assert, riots and public disturbances form no just rules to judge by. If the above state of the case, candidly drawn up, from the best information I could get, does not at least prove this ; I am sure it proves nothing.

It was always my opinion, and experience confirms it ; that sober and industrious workmen, of any sort, *never* riot. In all occupations, there will be idle, drunken, unsettled, and disorderly persons ; a few of these getting together, and talking over the *deariness of provisions*, (which presently becomes a cant term among them) inflame each other, and all of their own stamp ; they know a riot is their best diversion ; to stroll in a party about the country, eating and drinking at free cost, and having no work to do but mischief,

mischief, suits such geniuses to a hair: and one riot is no sooner kicked up, than the news occasions many others. But what are the effects of all this?—Why the price of provisions is the topic bandied about, from one side of the kingdom to another; with abundance of rhetorical flourishes, on the distresses of the poor rioters, until, at last, the reality of their complaints is taken for granted; they are pitied in proportion to the degree of their plundering and burning; and our statesmen are clamoured into measures.—But let me avoid sliding into the mysterious region of politicks: I mean to deal in facts alone; happy when I can discover them pure and unalloyed with prejudice.

Whatever may be your opinion of this point, *the Price of Provisions*, let me request that you would not give any credit to the pleas of rioters. You may have good reasons for thinking either way; but let not these lawless plunderers, who are universally the very skum, and riff raff of their neighbourhood, have the least effect upon your opinions. The more such fellows earn, the more succeeding time and money they have for the ale-house and disorderly meetings; and of course more in their power to do mischief.

Labour in some parts of the kingdom is certainly too low; in the West of *England*, for instance, to have it at several places so

low as 5 or 6s. the year round, bears no proportion to the prices of necessaries. If any thing could justify riots, it was the low earnings of these labourers, and not those of the manufacturers, who could earn twice as much. I am, by no means, a competent judge of what ought to be the price of labour; but it is clear enough to me, that this price is as much too low, as that about the capital is too high.

It is worthy of remark, that the general medium of manufacturers, is 8*d.* a week more than labourers; and that without taking in the very great earnings of wool-combers.

The cultivation given to those crops which are not common in husbandry, demands attention; for some of these will be found more profitable than any generally used by farmers. I shall begin with

L U C E R N E.

Mr. Ray.

Soil. Gravelly loam; good turnip land.

Culture. In rows, equally distant, of two feet; and both horse and hand hoed.

Product. Feeds two cows *per* acre through the summer.

Mr. Davy.

Soil. Good loam; turnip and wheat land.

Culture. In rows, equally distant, of two feet.

Use. In the year 1765, when natural grass and clover were burnt up, this proved extremely useful, not suffering at all.

Doctor Tanner.

Soil. A fine dry, gravelly, turnip and wheat loam.

Culture. Broadcast, and harrowed.

Produce. Four acres maintains 10 horses and 4 cows.

Mr. Newcomb.

Soil. A sandy loam.

Culture. Transplanted; rows 3 feet 4 inches by 1 foot in the rows.

Produce. Cut once oftener than Dr. Tanner's, but does not yield near so much food.

Between Shorn and Gravesend:

Soil. Fine dry, light, rich loam.

Culture. Broadcast.

Use. Applied to foiling horses.

Mr. Hunt.

Soil. Brick loam.

Culture. Rows equally distant, 1 foot.

Use. Cut four or five times a year; applied to foiling horses, and is a great improvement.

Mr. Baldwin.

Soil. A stony loam, dry but rich.

Culture. Drilled and transplanted; rows 2 feet: kept clean by horse hoeing and harrowing.

Produce. An acre foils 5 horses during 21 days,

days, at 6s. a horse *per* week. Reckoning the cuttings at 6 weeks, this is 18*l.* *per* acre, at four cuttings.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
At 3 <i>s.</i> <i>per</i> horse <i>per</i> week,	9	0	0
At 2 <i>s.</i> ditto, - - -	6	0	0
Reckoning the cuttings at 5 weeks, 5 cuttings,			
At 6 <i>s.</i> <i>per</i> horse <i>per</i> week,	22	10	0
At 3 <i>s.</i> ditto, - - -	11	5	0
At 2 <i>s.</i> ditto, - - -	7	10	0

Expences calculated.

Carrying the Lucerne to stables,	4	10	0
Rent, - - - -	1	10	0
Cleaning, - - - -	0	8	0
Four cuttings, - - -	0	10	0
One hand-weeding, -	0	10	0
	7	8	0

Profit. It is evident from hence, that a crop must yield more considerably, to make it answer where soiling is not paid for at the rate of 4*s.* 5*s.* or 6*s.* *per* horse *per* week, which is only around *London*.

Mr. Johnston.

Soil. Dry gravel, but good.

Culture. Broadcast, and drilled at 2 feet 6 inches.

Comparison. The drilled Lucerne always earlier

earlier than the broadcast, but not so much as to arise to one cutting in a year; in quantity the broadcast yields double to what the drilled does.

Produce. Three acres, 8 horses from the 2d of *May* to the end of *September*, 22 weeks; this, at 3 s. comes to 26 l. 8 s.

OBSERVATIONS.

From these experiments on Lucerne, we may venture to decide, that in some soils, and under certain circumstances, the profit will be immense: for instance, take Dr. *Tanner's* produce with Mr. *Baldwin's* situation, which gives him 6 s. a week for soiling. Four acres feed 14 horses and cows; these, at 6 s. a head, come to 4 l. 4 s. a week; and if the Lucerne lasts 24 weeks, it is 96 l. 16 s. the four acres, or 24 l. 4 s. *per acre*. But Doctor *Tanner's*, without this supposition, certainly answers nobly, as the expences are very trifling. The broadcast culture, in the comparison of the Doctor's and Mr. *Newcomb's*, and in that of Mr. *Johnston's*, is much superior to the drilled or transplanted. Its not being affected by a severe drought, the case with Mr. *Davy's*, is a valuable circumstance.

BURNET.

At Stoak, one acre.

Soil. Good loam.

Culture. Broadcast.

Produce. Yields luxuriant food so early as *February* for many horses. Horses eat the straw of it very freely. In *Jan.* 1768, a thick crop fed by sheep.

Earl of Northington.

Soil. Light but rich loam.

Culture. Broadcast.

Produce. Horses, hogs, and sheep feed freely on it.

Mr. Johnston.

Soil. Dry gravel.

Culture. Drilled.

Use. Cows and horses eat it with greediness.

OBSERVATIONS.

It appears extremely clear from these minutes, that the idea which some persons entertain of cattle disliking burnet, is a most mistaken one, since they eat it as freely as any other food. The trial at *Stoak* is perfectly satisfactory, particularly in the point of having a luxuriant head of food for sheep and horses in *January* and *February*, which every one must be sensible no other grass would give.

CARROTS.

Mr. Edwards. Cultivates them in so light a sand, that it drives in a ridge by the wind entering through the bars of a gate,

Mr. Ray.

Soil. Fine gravelly loam.

Culture. In drills 14 inches asunder, and keeps clean by hoeing.

Produce. 700 bushels *per* acre.

Expences. 7*l.* 17*s.* 6*d.*

OBSERVATIONS.

This root is one of the most profitable articles of culture that can be adopted by any person, not situate upon a strong clay or near a rock. 700 bushels, at 1*s.* amount to 35*l.* at only 6*d.* to 17*l.* 10*s.* which leaves 10*l.* an acre profit.

POTATOES.

Mr. Ray.

Soil. The same as for the carrots.

Culture. Dug for them.

Produce. 600 bushels an acre.

Expences. 14*l.* 2*s.* *per* acre.

At Ilford.

Soil. Rich gravel, and sandy loams.

Culture. Dibble in rows 2 feet by 1, and promiscuously.

Produce. Two tons a middling crop if taken up in summer.

OBSERVATIONS.

These crops, *viz.* potatoes, carrots, lucerne, &c. demand in a particular manner the attention of those gentlemen cultivators who

who are desirous of making a small quantity of land yield by compleat husbandry as valuable a produce, as a large tract managed in the common manner. And no conduct of land will enable a man to keep such stocks of cattle as these crops. Let them take, for instance, carrots and lucerne. The latter, with Dr. *Tanner*, yields food sufficient, on 4 acres, to maintain 14 horses and cows; this is 7 head to 2 acres for the summer food: for the winter, Mr. *Ray*'s carrots amount to 700 bushels *per* acre. Of these, suppose we allow 10 bushels a week to 4 head of horses or cows, the 7 will want, in that proportion, during 26 weeks, 455 bushels, which is the crop of 105 square rods. Therefore two acres of lucerne, and $\frac{1}{2}$ an acre of carrots, carry seven head of cattle through the year. Let us call it in all 2 acres and $\frac{1}{4}$. Then the proportion is 14 head of cattle on five acres and an half.

Potatoes in many places sell at 2 s. 2 s. 6 d. and 3 s. a bushel; 600 at 2 s. 6 d. are 75 l.

Another object which demands attention in the minutes of this Tour, is the comparative profit of cultivating certain soils. The husbandry of several places is mentioned, in which the farmer must make a considerable profit, but it does not appear what soil or given circumstances are most advantageous; or in other words, in what place

mentioned in this Tour, a man would fix in with a view to the profit of husbandry, preferable to other places. This is an enquiry pregnant with utility; I shall make it from the particulars of those places where they are minute enough.

In the improved parts of *Norfolk*, a calculation of a farm of 1100 acres is given, by which it appears that the annual profit is 1263 *l.* or 1 *l.* 3 *s.* *per acre per ann.* This must by no means be thought a small advantage; for in that country it is not the return of little tracts of land, but of very great farms; from 1000 to 3000 acres of land. If a farmer maintains his family upon the 3 *s.* an acre, and lays up the pound, he will in 20 years on 1000 acres, be worth 20,000 *l.* This rate is sufficient to account for the largest fortunes that have been made in *Norfolk* by farming.

Mr. *Orbell Ray*'s course of husbandry at *Tostoc*, gives me a different opportunity of calculating this point. His course of crops is,

- | | |
|------------|-----------|
| 1 Turnips, | 3 Clover, |
| 2 Barley, | 4 Wheat. |

And his expences and products from the account given, will be as follow :

TURNIPS.

<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Five ploughings, at 4 s.	1	0	0
Three harrowings, 4 d.	0	1	0
Seed and sowing, -	0	1	3
Twice hoeing, - -	0	6	6
Drawing and carting to stalls for beasts, - - -	0	15	0
16 Loads yard compost, -	1	4	0
N. B. Made at home.			
100 loads, an acre, loam and clay, which lasts 20 years, the ex- pence 3 l. therefore <i>per ann.</i>	0	3	0
Rent, &c. - -	1	0	0
	4	10	9

Product.

Value of the turnips, -	2	10	0
Loss, - - -	2	0	9

BARLEY.

Expences.

Three ploughings, -	0	12	0
Harrowing, - -	0	1	0
Seed 4 bushels, at 2 s. 6 d.	0	10	0
Sowing, - - -	0	0	3
Mowing and harvest, -	0	5	0
Thrashing 6 qrs. - -	0	6	0
Carrying out, - - -	0	3	0
Claying rent, - - -	0	3	0
Rent, &c. - -	1	0	0
	3	0	3

Produce.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
6 qrs. at 20 s.	-	-	6	0	0
Straw and chaff,	-	-	1	0	0
			7	0	0
Expences,	-	-	3	0	3
Profit,	-	-	3	19	9

CLOVER.

Expences.

Seed,	-	-	0	5	0
Sowing,	-	-	0	0	3
Mowing, making, and stacking twice,	-	-	0	12	0
Clay,	-	-	0	3	0
Rent, &c.	-	-	1	0	0
			2	0	3

Produce.

Value of the hay,	-		2	10	0
Expences,	-	-	2	0	3
Profit,	-	-	0	9	9

W H E A T.

<i>Expences.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
One ploughing,	-	-	-	0	4	0
Seed, 2 bushels, at 5 s.	-	-	-	0	10	0
Sowing,	-	-	-	0	0	3
Harrowing,	-	-	-	0	1	0
Water furrowing,	-	-	-	0	0	6
Reaping,	-	-	-	0	5	0
Harvesting,	-	-	-	0	1	6
Thrashing, 38 bushels, at 3 d.	-	-	-	0	9	6
Carrying out,	-	-	-	0	4	6
Clay,	-	-	-	0	3	0
Rent,	-	-	-	1	0	0
				2	19	3

<i>Produce.</i>						
38 Bushels, at 5 s.	-	-	-	9	10	0
Straw, &c.	-	-	-	1	0	0
				10	10	0
Expences,	-	-	-	2	19	3
Profit,	-	-	-	7	10	9

<i>Recapitulation.</i>						
Profit by barley,	-	-	-	3	19	9
Ditto clover,	-	-	-	0	9	9
Ditto wheat,	-	-	-	7	10	9
				11	19	6

A a

			<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	-	-	11	19	6
Loss by turnips,	-	-	2	0	9
Clear profit,	-	-	9	18	9
Which is <i>per</i> acre, <i>per annum</i> ,			2	9	8
<i>Per</i> 100 acres,	-	-	248	6	8
<i>Per</i> 1000 acres,	-	-	2483	6	8

From this system of husbandry it is extremely evident that a farmer may well afford two fallow crops (one a losing one, and the other yielding very small profit) in four years, and yet his land pay him extremely well : this is the great lesson that ought to be inculcated from this course. The turnips and the clover are not only perfectly effectual in cleaning the land, but enable him to raise large quantities of dung, at a very cheap rate. This circumstance is brought about to much the greatest advantage, by mowing the clover for hay, and eating it together with the turnips in stalls by fattening oxen ; which was Mr. Ray's management, and manure considered, I have no doubt of its proving far more advantageous than feeding the turnips off with sheep, in which application they will very seldom pay so much

as 2*l.* 10*s.* an acre. By means of this application of the turnips and clover, and the proper introduction of them between the corn crops, the land is always kept clean and in good heart.

But it is here necessary to make a variation, and suppose carrots to be introduced instead of the turnips in the way of the present Mr. *Ray*, and according to his account.

<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
As stated by Mr. <i>Ray</i> (see appendix) - -	7	17	6
Clay rent, - -	0	3	0
Topping, cleaning, laying up, &c. suppose, - -	1	10	0
	9	10	6

<i>Produce.</i>			
700 Bushels, suppose at 6 <i>d.</i> -	17	10	0
Expences, - - -	9	10	6
Profit by Carrots, - -	7	19	6
-----Barley, - -	3	19	9
-----Clover, - -	0	9	9
-----Wheat, - -	7	10	9
Total - - -	19	9	9
<i>Per acre per annum,</i> -	4	17	5
<i>A a 2</i>			

		<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Per</i> 100 acres,	- -	487	1	8
<i>Per</i> 1000 acres,	-	4870	16	6

Here we find the profit of a course doubled by introducing carrots instead of turnips at so low a price too as 6 *d.* a bushel; and at the same time all the advantages of the turnip culture retained, but in a greater degree; the manuring, cleaning, &c. all are superior to the turnips: this shews the very great importance of carrots, and proves the necessity of attending well to them by those who are desirous of pushing their husbandry to the highest profit. All soils except wet and stiff clays, and those which are very shallow on a rock, do extremely well for carrots.

The next course I shall state is the culture of the clay soils in the same county by the Rev. Mr. *Lord*, whose first operations are draining and claying. His course of crops is,

- | | |
|------------|---------------------|
| 1. Fallow, | 3. Clover, 2 years, |
| 2. Barley, | 4. Wheat. |

FALLOW.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Five ploughings,	- -	1	0	0
Harrowing,	- -	0	1	6

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over, - -	1	1	6
Water furrowing, - -	0	1	0
Draining, 3 <i>l.</i> claying, 6 <i>l.</i> in all, 9 <i>l.</i> suppose the twentieth <i>per</i> <i>annum</i> ,	0	9	0
Rent, &c. - - -	0	17	0
	2	8	6

BARLEY.

Expences.

Three ploughings, -	0	12	0
Harrowing, - - -	0	1	0
Seed, - - - -	0	10	0
Sowing, - - - -	0	0	3
Mowing and harvesting, -	0	5	0
Thrashing, 7 qrs. -	0	7	0
Carrying out, - - -	0	3	6
Clay and draining, - -	0	9	0
Rent, &c. - - - -	0	17	0
	3	4	9

Produce.

7 Qrs. at 20 <i>s.</i> - -	7	0	0
Straw, &c. - - -	1	0	0
	8	0	0
Expences, - - - 3 4 9			
Fallow, - - - 2 8 6			
	5	13	3
Profit, - - - -			
	2	6	9
A a 3			

CLOVER.

<i>Expences.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
Seed and sowing,	-	-	0	5	3
Clay and draining,	-	-	0	9	0
Rent, &c.	-	-	0	17	0
			1	11	3

Produce.

Fed ; a common hiring rent in the neighbourhood, is 2 <i>l.</i> 2 <i>s.</i> say					
therefore,	-	-	-	2	10 0
Expences,	-	-	-	1	11 3
Profit,	-	-	-	0	18 9

CLOVER, 2d.

<i>Expences.</i>					
Clay and draining,	-	-	0	9	0
Rent, &c.	-	-	0	17	0
			1	6	0

Produce.

Value of the food in proportion to the first year must be,					
	-	-	-	2	0 0
Expences,	-	-	-	1	6 0
Profit,	-	-	-	0	14 0

W H E A T.

<i>Expences.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
Ploughing,	-	-	-	0	4	0
Harrowing,	-	-	-	0	1	0
Manuring,	-	-	-	1	10	0
Seed,	-	-	-	0	10	0
Water furrowing,	-	-	-	0	1	0
Sowing,	-	-	-	0	0	3
Reaping,	-	-	-	0	5	0
Harvesting,	-	-	-	0	1	6
Thrashing, 5 qrs.	-	-	-	0	10	0
Carrying out,	-	-	-	0	5	0
Clay and draining,	-	-	-	0	9	0
Rent, &c.	-	-	-	0	17	0

4 13 9

Produce.

5 Qrs. at 5 s.	-	-	-	10	0	0
Straw,	-	-	-	1	0	0
				11	0	0
Expences,	-	-	-	4	13	9
Profit,	-	-	-	6	6	3

l. s. d.

Recapitulation.

Profit on Barley,	2	6	9
— Clover, 1st year,	0	18	9
— Ditto, 2d ditto,	0	14	0
— Wheat,	6	6	3
Total,	10	5	9
<i>Per acre, per annum,</i>	2	1	2
<i>Per 100 acres,</i>	205	16	8
<i>Per 1000 acres,</i>	2058	6	8

Mr. Lord's soil was naturally a poor, cold, wet, hungry clay, which at 10 s. an acre would be rented by no means cheap; but we find from great exertions of good husbandry that it is made extremely profitable, notwithstanding a fallow and two crops of clover come in in five years. It is by sowing corn so seldom, that such great crops are gained.

The next husbandry I shall examine is that at *Bexley* in *Kent*, which is a fine rich loam on chalk, at 20 s. an acre. The course of crops,

1. Pease podded, and then turnips,
2. Barley,
3. Clover,
4. Wheat.

l. s. d.

Pease and turnips.

Three ploughings, at 8 s.	-	-	-	1	4	0
Harrowing,	-	-	-	0	2	0
Drilling pease,	-	-	-	0	2	6
Seed,	-	-	-	0	12	0
Manuring,	-	-	-	2	0	0
Two ploughings,	-	-	-	0	16	0
Seed turnips and sowing,	-	-	-	0	1	3
Hoeing,	-	-	-	0	6	6
Rent,	-	-	1	0	0	
Tythe,	-	-	0	3	6	
Rates,	-	-	0	2	6	
						1 6 0
						6 10 3

Produce.

Pease sold on the ground,	-	4	0	0
Turnips, ditto fed,	-	2	0	0
Expences,	-	6	0	0
		6	10	3
Loss,	-	0	10	3

BARLEY.

Expences.

Three ploughings,	-	1	4	0
Harrowing,	-	0	1	6
Seed, 4 bushels,	-	0	10	0

				<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	-	-	-	1	15	6
Sowing,	-	-	-	0	0	3
Mowing and harvesting,	-	-	-	0	8	0
Thrashing, 6 $\frac{1}{2}$ qrs.	-	-	-	0	9	9
Carrying out,	-	-	-	0	3	3
Rent, &c.	-	-	-	1	6	0
				4	2	9

Produce.

6 $\frac{1}{2}$ Qrs.	-	-	-	6	10	0
Straw,	-	-	-	1	10	0
				8	0	0
Expences,	-	-	-	4	2	9
Profit,	-	-	-	3	17	3

CLOVER.

Expences.

Seed and sowing,	-	-	-	0	5	0
Mowing and making twice,	-	-	-	1	0	0
Rent, &c.	-	-	-	1	6	0
				2	11	0
3 Loads, at 40 s.	-	-	-	6	0	0
Expences,	-	-	-	2	11	0
Profit,	-	-	-	3	9	0

W H E A T.

<i>Expences.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
One ploughing,	-	-	-	0	8	0
Harrowing,	-	-	-	0	2	0
Seed,	-	-	-	0	10	0
Sowing,	-	-	-	0	0	3
Water furrowing,	-	-	-	0	0	6
Reaping and harvesting,	-	-	-	0	10	0
Threshing, (suppose only 5 qrs. instead of 6 $\frac{1}{2}$ minuted)	-	-	-	1	0	0
Carrying out,	-	-	-	0	10	0
Rent, &c.	-	-	-	1	6	0
				4	6	9

<i>Produce.</i>						
5 Qrs.	-	-	-	10	0	0
Straw, &c.	-	-	-	1	10	0
Total,	-	-	-	11	10	0
Expences,	-	-	-	4	6	9
Profit,	-	-	-	7	3	3
Profit by Barley,	-	-	-	3	17	3
-----Clover,	-	-	-	3	9	0
-----Wheat,	-	-	-	7	3	3
				14	9	6

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	14	9	6
Loss by pease and turnips, -	0	10	3
Total profit, - - - -	13	19	3
Or <i>per annum</i> , - - - -	3	9	9
Per 100 acres, - - - -	348	15	0
Per 1000 acres, - - - -	3487	10	0

From this estimate it appears that the profit of cultivating these rich soils is extremely great, notwithstanding the high rent and the dearness of labour: the crops upon them are regular, and little dependent on the seasons; yet this profit would be greatly increased, if carrots were substituted instead of pease and turnips, and yet good allowances made for the dearness of labour. This will best appear by stating the variation.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Expences.			
Three ploughings, -	1	4	0
Harrowing, - - - -	0	2	6
Manuring, - - - -	2	0	0
Seed, - - - -	0	6	0
Sowing, - - - -	0	1	6
Carry over, - - - -	3	14	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over, - - -	3	14	0
Hoeing thrice, - - -	3	3	0
Taking up, - - -	1	10	0
Topping, cleaning and laying up, 2	0	0	0
Rent, &c, - - -	1	6	0

11 13 0

Produce.

Such a soil, though much richer than Mr. Ray's (above calculated), and expences much higher, cannot be estimated to produce less: however I shall suppose only 500 bushels, at 1 s.

Expences, - - -	25	0	0
	11	13	0
Profit, - - -	13	7	0
—by Barley, - - -	3	17	3
—Clover, - - -	3	9	0
—Wheat, - - -	7	3	3
	27	16	6

Which is *per annum*, - - - 6 19 1

Per 100 acres, - - - 695 8 4

Per 1000 acres, - - - 6954 3 4

It

It is sufficiently plain from hence that in order to carry husbandry to its greatest profit, some other fallow crop than turnips must be substituted: that root is of excellent utility for the general fallow of a vast farm, and for the subsistence of cattle where carrots cannot be grown; but nothing can be clearer, from the practice of much the greatest part of the kingdom, that they are a crop which will not more than pay expences, and if manure is used for them, not that. But the case is different with carrots; with them, the fallow is the most profitable crop in the course; they prepare better for corn than turnips, as may easily be conceived by three guineas being expended in hoeing; and they are applicable to all the uses of turnips, and to many more. *Bexley*, where this calculation is made, is not more than ten miles from *London*, where they sell from 2 s. 6 d. to 4 s. a bushel; the expences of carrying there would not amount to more than 3 d. and yet I have calculated them so low as 1 s. which shews what a source of profit this culture might be to all the farmers in that neighbourhood. Potatoes are another crop to be introduced upon the same principles, which would in the same manner yield a produce far more profitable than any common husbandry.

Recapitulation. *l. s. d.*

Profit <i>per acre per annum</i> , by			
Mr. <i>Ray</i> 's husbandry, -	2	9	8
Ditto, with carrots instead of			
turnips, - - -	4	17	5
Mr. <i>Lord</i> 's husbandry, -	2	1	2
The <i>Bexley</i> ditto, - -	3	9	9
Ditto with carrots, instead of pease			
and turnips, - - -	6	19	1

I cannot conclude, without again repeating, what I have mentioned more than once; that you must not expect the authority of such a journey as mine, to be equivalent to a general and comprehensive view of the whole island, founded as much upon facts, as the reflections which I have drawn from this little tour. The extent of my information has not been great; but I flatter myself that I have not neglected to turn it to some use.

Was any one to follow the example, so far as to take minutes of a journey; he would, doubtless, profit by my errors and omissions; and be (as I should myself, in case I was accidentally to take another) more particular and methodical in his inquiries, and that, especially, at the beginning of his journey: but with whatsoever *spirit* he prosecuted such a plan, he would have full employment for it; and if I may judge from my own

experience, he would not find the gaining a variety of intelligence a business of little fatigue, or small expence. Nothing of this kind could give me more satisfaction, than to see a universal knowledge of the present state of the rural œconomy and manufactures of the whole kingdom published for the general good. I make no doubt but you will agree with me in wishing for such a work, how little reason soever there is to expect it *.

I remain, Dear Sir,

Your's very sincerely,

* * * * *

The houses which particularly merit a comparison, are *Holkam*, *Houghton*, *Blenheim*, *Wilton*, and *Wanstead*.

In point of the beauty of architecture, *Holkam* and *Wanstead* rank first; but which of these have the preference, is a question, which by many would be variously determined. In my opinion, *Holkam* is the most beautiful; for notwithstanding the front of *Wanstead* is *absolutely*

* The noblemen's houses, described in the preceding sheets, form a subject of no importance, but perhaps of some little amusement; in this light, I venture to offer the sketch of a comparison between them, which need not disgust any reader by its inutility; as he may throw aside the book after reading this note.

uniform, and commanded at one stroke of the eye, advantages *Holkam* does not possess, in consisting of parts, which, tho' uniform with each other, form not one simple whole; yet there is such a light elegance in the pile; such an airiness, that one would swear it moved; I cannot therefore but prefer it. *Wilton* is so very irregular, that one cannot speak of its architecture in a general stile; but *Inigo Jones's* part is very fine. *Houghton* is a magnificent edifice; *Blenheim* the same, but heavy.

As to their size, I am ignorant which is the largest house: However the following sketch will display it, at least in the proportion to what is shewn: which I take generally to amount to all that is worth seeing.

Rooms.	Holkam. Leng. Bre.	Houghton. Leng. Bre.	Blenheim. Leng. Bre.	Wilton. Leng. Bre.	Wanstead. Leng. Bre.
Hall,	†† 48 48	† 40 40	† 53 44	50 28	53 45
Saloon,	42 27	§ 40 30	* 44 33	†§ 60 30	30 30
Drawing-room,	33 22	30 21	28 28	*† 30 30	27 27
Ditto,	33 22	30 21	35 25		30 25
Ditto,			35 25		† 40 27
Ditto,			25 25		27 27
Dining-room,	28 28	30 21	**	45 21	27 27
Ditto,		† 30 21			25 25
Ditto,					40 27
Ditto,					40 35
Breakfast-room,			24 24		30 25
Library,	50 21	21 $\frac{1}{2}$ 22 $\frac{1}{2}$	180 43		
Statue-gallery,	114 22				
Ball-R.					75 27
Bed-cha.	30 22	21 $\frac{1}{2}$ 22 $\frac{1}{2}$		30 25	24 20
Ditto,	24 22	21 $\frac{1}{2}$ 22 $\frac{1}{2}$			25 22
Ditto,	21 21	22 $\frac{1}{2}$ 18			27 22
Ditto,	21 21	18 18			27 22
Ditto,	21 21				
Ditto,	21 21				
Dressing-room,	* 24 22	22 $\frac{1}{2}$ 16 $\frac{1}{2}$	24 24	25 25	27 25
Ditto,	28 24	† 22 $\frac{1}{2}$ 21			26 18†
Ditto,	22 21				
Ditto,	22 21				
Ditto,	22 21				
Ditto,	22 21				

†† 48 High. † 40 Ditto. † 60 Ditto. § 40 Ditto.
 * 45 Ditto. †§ 30 Ditto. *† 30 Ditto. †† Called,
 improperly, the Antichamber. ** Not seen.
 †† Called the Marble Parlour. * Called the Land-
 scape-Room. † Called the Cabinet.

† There appears a deficiency of dressing-rooms at
 Wanstead; but it should be remembered, there are four
 drawing-rooms and dining-rooms, some of them
 adjoining the bed-chambers.

Rooms.	Holkam. Leng. Bre.	Houghton. Leng. Bre.	Blenheim. Leng. Bre.	Wilton. Leng. Bre.	Wanstead. Leng. Bre.
Anti-chamber,	21 21				
Ditto,	21 21				
Ditto,	21 21				
Hunting-room,				25 25	
Totals,	749 511 1260	350 295 645	448 271 719	265 184 449	600 476 1076

Blenheim hall and library, *Wilton* saloon, and *Holkam* statue-gallery, are the finest rooms in these houses.

In respect of complete apartments; of bed-chambers and dressing-rooms, *Holkam* and *Wanstead*, some would think, nearly on a par, the latter four, the former six; but the latter are much the best rooms. I include four rooms at *Wanstead*, which in the table are called either dining or drawing-rooms; the advantage, however, is on the side of *Holkam*.

A ball-room is found at *Wanstead* alone.

Holkam chapel (not mentioned in the table) is preferable to that at *Blenheim*.

As to the deficiencies of these houses, they appear at one view in the table. But I must remark in general, that no house I have yet seen is perfect by many degrees. Suppose one was to be formed out of all these; take the shell of *Holkam*, and imagine it to contain *Blenheim* hall and library, *Wilton* saloon, *Wanstead* ball-room and

Rooms.	Holkam. Leng. Bre.	Houghton. Leng. Bre.	Blenheim. Leng. Bre.	Wilton. Leng. Bre.	Wanstead. Leng. Bre.
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Saloon,	42 27	§ 40 30	* 44 33	†§ 60 30	30 30
Drawing-room,	33 22	30 21	28 28	*† 30 30	27 27
Ditto,	33 22	30 21	35 25		30 25
Ditto,			35 25		† 40 27
Ditto,			25 25		27 27
Dining-room,	28 28	30 21	**	45 21	27 27
Ditto,		† 30 21			25 25
Ditto,					40 27
Ditto,					40 35
Breakfast-room,			24 24		30 25
Library,	50 21	21 $\frac{1}{2}$ 22 $\frac{1}{2}$	180 43		
Statue-gallery,	114 22				
Ball-R.					75 27
Bed-cha.	30 22	21 $\frac{1}{2}$ 22 $\frac{1}{2}$		30 25	24 20
Ditto,	24 22	21 $\frac{1}{2}$ 22 $\frac{1}{2}$			25 22
Ditto,	21 21	22 $\frac{1}{2}$ 18			27 22
Ditto,	21 21	18 18			27 22
Ditto,	21 21				
Dressing-room,	* 24 22	22 $\frac{1}{2}$ 16 $\frac{1}{2}$	24 24	25 25	27 25
Ditto,	28 24	† 22 $\frac{1}{2}$ 21			26 18†
Ditto,	22 21				
Ditto,	22 21				
Ditto,	22 21				
Ditto,	22 21				

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large dining-room, besides every thing it has already, it would be infinitely finer than it is ; but still it would want a music-room and a picture-gallery. The last is an infinite addition to a great house, but the former is indispensable. Of all luxuries, none is more elegant than this charming art ; pictures and statues may be disposed in any room ; but music in perfection, must have one appropriated to it—nor can any furniture be more magnificent, than what ought to adorn such a room.

Upon the whole, *Holkam* is not only the largest, but undoubtedly the best house.

APPENDIX.

SINCE Mr. Ray's article was printed, I have been favoured with some explanations from him concerning the expences of his carrots and potatoes. The following is his account.

Potatoes.

160 Rods of trenching, at 8 <i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
per rod, - - -	5	6	8
15 Loads of dung, - -	0	15	0
12 Bushels of potatoes, at 18 <i>d.</i>	0	18	0
12 Days work, - - -	0	16	0
18 Ditto, 2 men hoeing, -	2	8	0
Taking up 600 bushels, at 1 <i>d.</i>			
per bushel, - - -	2	10	0
Rent, tythe, rates, fencing,	1	0	0
	13	13	8

Mr. Ray writes that he made but a bad market of them; he was twice offered 9*d.* a bushel for them, which he refused,

B b 3

imagining

imagining them to be worth 1 s. He sold about 350 in the retail way, at 1 s. but, however it may be in other countries, it is by no means a favourite food with the poor in his neighbourhood. The remainder he threw to his hogs, but they did not seem fond of them, when they were first taken out of the earth; after they had laid some time in a heap and began to sprout, they then very greedily devoured them. The infinite quantity of small potatoes which he left in the land induced him to trust to the spontaneous growth of these for another crop, but has since had reason to repent it, for the product was very inconsiderable, and they rendered the land extremely foul. At *Michaelmas*, 1769, he laid it up in ridges, and without carrying on any manure sowed it in *March*, 1770, with carrots in drills, 14 inches asunder: the infinite trouble he had in weeding these carrots made him fear the crop would not pay for the expence; however he drew at *Michaelmas*, 600 bushels, for which he was offered 7 d. a bushel; he put up ten full grown hogs, and gave them about 150 bushels; they
scoured

scoured them very much, but did not fatten upon them at all; his cart and saddle-horses had the rest. At *Michaelmas*, 1770, he ploughed up the land as in the preceding year, and carried on in the frost 20 loads of manure: he sowed the land again with carrots, and his gardener computes the crop at 700 bushels.

The expences he states as follows.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Michaelmas</i> ploughing,	-		0	3	0
Spring ditto with harrowing,	-		0	3	6
20 loads manure,	-	-	1	10	0
Seed,	-	-	0	15	0
Sowing, a man and boy 1 week,			0	10	6
First hoeing,	-	-	1	11	6
Second ditto,	-	-	0	16	0
Taking up,	-	-	1	8	0
Rent, &c.	-	-	1	0	0
			7	17	6

Mr. *Ray*'s turnips prove so indifferently this season, that he intended giving the carrots to his fat beasts.

I beg leave to make two observations on this account.

First, The circumstance of hogs preferring the potatoes after they had been kept till sprouting, is very remarkable, and deserves a farther enquiry; perhaps the roots acquire an acid by keeping.

Secondly, I have to remark that the point of hogs not fattening upon carrots, yet remains totally undecided. It is much to be regretted that gentlemen will not give themselves the trouble to try a few experiments upon this point most accurately; for I have in former works given instances of exceeding good success, and of some very bad, in this matter of fattening hogs on carrots.

The only method to discover the truth, is to form comparative trials. It is essential that the hogs to be fattened should, when put up, be weighed alive; and the same just before killing, by which means the gain of flesh is exactly ascertained. The eye is never to be trusted in this; nor the
value

value sold in any method but by weight.

Confine two hogs to carrots given raw,

Ditto——to carrots boiled,

Ditto——to carrots boiled and mashed, and
a portion of barley or pease meal
mixed with the mash. Suppose a
third or fourth, and given as soon
as cold.

Ditto——Ditto, but kept till four.

If any of them fattened well, to be
killed when fat; but if the contrary, to be
kept on the food not less than 3 months.

Some hogs grow much after putting up,
in which the judgment and the eye is
deceived; but by weighing, as abovementioned,
it would come into the account as
well as fat gained, as it certainly ought
to do.

Nor should such trials be confined to
hogs; oxen are said, from experience, to
thrive exceedingly on carrots; nor can it
well be doubted, that an animal will fatten
on carrots that will do the same on turnips,
and probably to much greater advantage.

But

But the circumstance of weighing alive is essentially necessary ; which with a large ox would be a difficult business ; it would require a machine to be erected on purpose,

For sheep it would be done as easy as with hogs.

The great object is, to know how many pounds of pork, mutton, or beef, a ton of carrots will, on an average, give.

Buying a lot of any of these animals, fattening them on carrots, and then selling them, taking the balance as the value of the carrots, will never prove satisfactory ; the food will sometimes turn out extremely valuable, at others entirely worthless ; because the beasts would vary so much in price, sometimes bought in very cheap, at others exceeding dear. Suppose the purchaser had the better in the bargain, and gained the beasts at much less than their value ; in such a case, carrots would appear a very fine food, without in the least deserving it. Variations in the price of meat would also cause a great difference in

in that of the food: all which circumstances should be avoided; and the proportion of the *weight* of meat gained be alone considered.

To shew the necessity of proceeding on this plan, let us consider that turnips have been used by common farmers these fifty years in fattening beasts; and yet if we go to the most skilful husbandmen in that branch of their business, and ask them how many pounds of beef a ton of turnips will on an average give, we should find them to the full as ignorant as if we enquired of them the management of Mago, the Carthaginian.

Those who exert themselves in defending the *good old ways*, and in ridiculing what they call Book-husbandry, will reply, that the farmers do not raise the worse turnips, nor are longer fattening their oxen, without this knowledge, than they would be with it; consequently it is good for nothing. But such ideas are very mistaken ones. It is very doubtful in the turnip countries, whether a good crop, gained by
manure,

manure, ever pays the expences of culture, except as a preparation for corn ; if this is the case, it surely is a very important object to know the degree of loss or profit, in order to compare it with the other crops which would answer the same purpose. For carrots will always be found to yield a profit as well as a product ; and substituting them, or any other crop of the same kind that pays all expences and leaves a balance of profit, instead of one that rarely pays expences, is an object of no trifling importance.

Page 33.

From *Bournbridge* to *Chesterford* is the country where saffron is principally cultivated ; it is a very confined branch of husbandry, and not reckoned very profitable.

Mr. *Gardner*, of the Inn at *Chesterford*, has cultivated carrots with very great success. In 1770, he had an acre which yielded 500 bushels ; the value of which in feeding horses, he calculated at 1 s. a bushel ; but could, for the same use, have sold many of them at 2 s. 6 d. a bushel.

Farming-

Farming-horses, to whom it was necessary to give 1 peck of oats a day, did their work equally well with $1\frac{1}{2}$ to 2 of carrots.

In 1771, he had $2\frac{1}{2}$ acres, the crop 400 bushels *per* acre; and applied to the same use, and with the same success.

Mr. *Gardner's* method of cultivating them is, to trench-plough a barley stubble in *March* 12 inches deep, and to sow the carrot-feed broadcast directly. He hoes two or three times, at the expence of from 20s. to 25s. an acre; and takes up the crop with three-pronged forks, the price of which is 1d. or $1\frac{1}{2}$ d. *per* square rod. The soil is a light sandy loam, dry all through winter; under it, gravel or chalk.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Trench-ploughings,	-	0	7	6
Harrowing,	-	0	1	6
Seed,	-	0	4	6
Sowing,	-	0	1	0
Hoeing,	-	1	5	0
Taking up,	-	0	15	0
Suppose topping and carting,	-	1	0	0
Rent, tythe, and rates,	-	1	16	0
		4	10	6

Product.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
500 bushels, at 1 s.	-		25	0	0
Expences,	-	-	4	10	6
Clear profit,	-	-	20	9	6
400 bushels, at 1 s.	-		20	0	0
Expences,	-	-	4	10	6
Profit,	-	-	15	9	6

Both crops are therefore far more profitable than any others which could have been sown; and it is observable, that there are great tracts of land in this country as applicable to carrots as this, but none sown in them: it is to be hoped that the culture will spread at least by degrees, till it becomes common husbandry; for till then, the dry lands in *England* will be far enough from being applied to their best advantage.

The means Mr. *Gardner* takes to secure his carrots from the frost when taken up, is to keep a tub full of water in the same room,

room, and as fast as it freezes, empties the ice out and fills the tub with fresh water: as long as the water is in the tub, no carrots, potatoes, apples, &c. will freeze in the same room.

Barley after carrots, he finds much better than after turnips, though fed on the land, which is a surprizing difference.

He finds the carrots of excellent use for all his sick horses; seldom failing of effecting their cure. Their effect in fatting horses is so great, that Mr. *Penniston*, of *Saffron Walden*, who had 10 acres, in six weeks fattened two horses with them, which would not have sold for 5 *l.* each, to the value of 27 *l.* at which price he sold them.

Sainfoine Mr. *Gardner* has also tried, and with good success; his crops of hay generally two loads an acre; which yield a far greater profit than the common husbandry of the country.

About

About *Audley-End*, the *Newmarket* road leads through an open country, most of it arable field-land, which lets at 8s. or 10s. an acre. Their open-field course is,

- | | |
|------------|------------|
| 1. Fallow, | 3. Barley. |
| 2. Wheat, | |

And,

- | | |
|------------|--------------------|
| 1. Fallow, | 3. Oats, pease, or |
| 2. Wheat, | tares. |

In the inclosures they substitute,

- | | |
|-------------|----------------|
| 1. Turnips, | 4. Wheat, |
| 2. Barley, | 5. Barley, &c. |
| 3. Clover, | |

Wheat yields from 1 to $2\frac{1}{2}$ quarters *per* acre; barley after turnips, 3 quarters. Never were more miserable crops seen than all the spring ones in the open fields; absolutely beneath contempt. With the barley or oats they sometimes throw in clover or trefoil, which crops make a figure that is truly detestable; they are, literally speaking, covered with thistles to an excess that no-body will conceive who has not seen them: all are left to perfect their feeds. I passed by when they were quite

quite ripe, and every gale of wind blew whole clouds over the country: I stopped to make enquiries; they assured me that clover and trefoil ran so to thistles, that it was impossible to help it. And I can easily believe that the best husbandry in the world would signify nothing, if any man was suffered to leave his crops to become what I saw; for there were seeds enough to stock all the kingdoms and empires between *Britain* and *China*. But if one and all were to join in mowing every thistle before he seeded, for a year or two, and at the same time change their course, by sowing their barley after the fallow, their clover and trefoil after that barley, and their wheat upon the clover, they would then find crops of good corn without thistles. I would pursue this course, notwithstanding the land's being common field. That it is extremely practicable will appear from the following comparison.

Present course.

1. Fallow,
2. Wheat,

Course proposed.

1. Fallow,
2. Barley,
3. Barley,

C c

3. Barley,

3. Clover, which I could mow as well as they their barley; and if I kept the land in heart, twice by the time they got their barley off.

4. Fallow,

4. Clover, left the second year it would be folded by all the cattle of the field keeping on it.

5. Wheat,

5. Wheat.

By which change, I should have my share of the common field in excellent husbandry and order, while their second crops of corn kept them in their present mediocrity.

One man in this country will, I am very sure, object to it; I mean, farmer *Riccart*: Seeing a field so stuck with thistles, that a mouse could scarcely get between them, and in the full pride of their blossoms: *Whose field is that?* Farmer *Riccart*'s. Presently another appeared: *And whose is that?*
Farmer

Farmer Riccart's : *A third?* Farmer Riccart's. If I lived in this country, I should wish farmer *Riccart* at the devil ; and would take any honest means to send him thither. Who is his landlord ?

Near *Audley-End*, I observed two small fields of lucerne, which I suppose belong to Sir *John Griffin* : they are in drills about 2 feet asunder, and kept very clean. The crop was weak, and seemed, I thought, to complain of the land. One of the fields is drilled across, so as a horse-hoe cannot be used in it *.

Page 70.

In the tract of country extending from *Sudbury* to *Bures*, &c. upon the river *Stour*, is found much good land, and in many

C c 2 respects

* *Audley-End* is an instance, and a very striking one, that nothing is impossible with art—that you may find a house in a pit, and place it on a hill : the improvement here is admirably executed ; nothing is over-done, and yet every thing that the nature of the place required.

Lord *Thomond's* water is an excellent imitation of a river ; but the first sight on the entrance much the finest.

respects excellent husbandry. Farms are in general of a moderate size, from 80*l.* to 200*l.* a year, but rising from 30*l.* to 400*l.* a year. The soil of the arable parts, which are upon the hills or high grounds that bound the meadows on the river, is in general a gravelly sound loam, that is rich enough for wheat, and at the same time dry enough for feeding turnips on it, which I have more than once observed before are the characteristics which of all others please me the best, being expressive of every good quality that land can have for all common crops. They have, however, in every farm almost, some fields that incline too much to clay for turnips. Rent runs in general at 15*s.* or 16*s.* an acre, including both arable and meadow; but some small farmers pay 20*s.*

Their courses of crops are in general these :

- | | |
|------------------|-------------------|
| 1 Turnips, | 4 Wheat, |
| 2 Barley, | 5 Barley or Oats. |
| 3 Clover 1 year, | |

This is the most common course; the only exceptionable crop in it is the fifth, which

is certainly bad husbandry ; some few farmers (the very best of them) drop that crop of barley.

- | | |
|-------------|-----------|
| 1. Turnips, | 4. Wheat, |
| 2. Barley, | 5. Pease, |
| 3. Clover, | 6. Oats. |

An extreme good course ; but if the pease turn out a very thick crop, they do not omit sowing wheat after them instead of the oats.

Upon the heavy lands,

- | | |
|------------|------------|
| 1. Fallow, | 3. Clover, |
| 2. Barley, | 4. Wheat. |

Which is an excellent course ; but sometimes they run it,

- | | |
|------------|--------------------|
| 1. Fallow, | 4. Wheat, |
| 2. Barley, | 5. Barley or Oats. |
| 3. Clover, | |

Which, as in the former course, is very bad ; throwing in pease or beans after the wheat, and then taking the barley or oats, would have nothing exceptionable in it. I should observe, that these men have long ago discarded (I mean the best farmers among them) the old and most unprofitable

custom of sowing wheat upon a fallow, which throws all the course in confusion, and excludes clover to any capital use; for though it may be sown in the spring among wheat, yet the most that is to be looked for from such a slovenly practice, is some sheep-feed instead of a field of weeds; and wheat on fallow, being on the ridge, were the clover to succeed ever so well, it could not be mown, which is the principal use of it.

Sowing wheat on clover, they of course plough but once for it, use two bushels of seed, and get upon an average two quarters and an half. For barley after turnips, they have two methods; one, to plough but once, and immediately harrow in the seed; the other, to stir three times: the point depends on the judgment of the farmer; if he hits off the exact time for the first ploughing, the land will break up in fine moulds, and the barley do as well as on more earths, with the great advantage of getting it in early: but if the first ploughing leaves the soil in rough order, more tillage should be given till it is sufficiently fine:
this

this nicety in ploughing can only be gained by experience.

They sow 4 bushels of barley, and reckon the average crop at 4 quarters and an half. For oats after wheat, they plough thrice; after pease, &c. only once; sow 4 bushels an acre, and gain upon a medium 4 quarters to 5.

For pease they give but one ploughing, sow 2 or 3 bushels an acre, and get about 2 quarters and an half. Some of them hand-hoe their pea-crops, and never fail of finding the practice very successful. Beans are not cultivated in large quantities; but they plough only once for them, sow 2 bushels an acre, hand-hoe them twice, and get 3 and an half or 4 quarters in return.

Here and there a farmer sows a piece of coleseed, for the sake of spring-feed after turnips are gone, for ewes and lambs; in which they reckon it extremely profitable.

Their turnip culture is very complete. They plough four, five, or six times for them, generally manure with farm-yard dung,

dung, at least a part of the crop; hand-hoe them always twice, at the expence of seven or eight shillings an acre: their crops are very fine, and they feed them on the land with fat wethers or oxen; some few farmers stall-feed their beasts, but the general way is to fatten in the field. Their system of turnip-feeding is connected with their rich meadows; for in *August* they buy in large quantities of oxen (many from *St. Ives* in *Huntingdonshire*) of a great size, and turn them into the after-grass of the meadows, which keep them well till the end of *October*, and then they put them to turnips, selling as fast as fat in the spring, which is upon the whole an excellent system. Turnips are worth, upon an average, about 2*l.* 2*s.* *per* acre.

Clover, as I observed in their courses of crops, is sown with barley that follows turnips or fallow. They both mow and feed it; some mow twice for hay, others once for hay and once for feed; others mow the first crop and feed the second; and this is the most common method. A middling acre will yield at one mowing
two

two loads of hay, worth 35s. a load; and if cut a second time, a load and half, worth 30s. a load. They feed it promiscuously with all sorts of cattle, but principally appropriate it for hogs, horses, and sheep; for all which they think it exceeds the richest meadows. Respecting the wheat, they are of different opinions; some think that crop the best after mowing, others after feeding; and if a thin coat of manure is spread, they get as good crops after feeding, as after hay or feed, and often better. But of late years, the best farmers have got into a new system, which they find excellent; it is to lay on the manure upon the clover, in the winter after the barley is reaped; by which means their crops of hay and food are much increased, and the wheat is cleaner than when the manure was spread directly for that. This husbandry deserves imitation; one farmer here has mown four loads and an half of hay *per* acre at two cuts, and sold the whole for 50s. a load, which is 11l. 5s. an acre.

Tares

Tares have been sown now and then for hay; they use only the summer tare; sow it on one earth in *March*, and mow for hay when just going off the blossom; great crops are gained, even to $2\frac{1}{2}$ tons *per* acre; but the husbandry is not common.

Nothing known here of sainfoine, buckwheat, carrots, lentils, hemp, flax, or potatoes.

In manuring, they depend principally on the farm yard; they cart the dung from it to heaps near the fields where they intend to spread it, and forming layers of earth and marle or chalk, mix it together; and a load of such compost they reckon very nearly as good as a load of the dung alone. They understand and practise the system of chopping and gathering stubble; but do not practise it with so much attention as it deserves. Most of the large flocks of sheep are folded.

There are no wet fields in the country undrained; every farmer is so sensible of the importance of keeping his lands perfectly

fectly dry, that hollow ditching is nowhere better understood: they plough four furrows first, and then dig two spits, at the expence of $1\frac{1}{2}$ *d.* a rod; they do not cut them at the distance of more than two rods asunder: the effect is always found to be very great.

Grafs lands are principally meadows on the river, of which they have an exceeding fine tract. Let by itself, it would be about 20*s.* an acre for only the crop of hay, as it is common land after mowing. The average crop of hay is about $2\frac{1}{2}$ loads *per* acre; and the after-grafs is of great use in fattening those beasts which are bought in for turnips. There are some large dairies, but not many; a good cow will give 6 or 7 gallons of milk in a day; and yield an annual product of 5 *l.* or 6 *l.* To ten cows they will keep two or three breeding sows and the pigs brought by them; and they reckon that a dairy-maid can take care of 12. In winter, they feed them on straw and turnips, with a little hay at calving.

Swine

Swine fat to about 15 stone.

Flocks of sheep rise to 3000, which number is kept by a great farmer in the neighbourhood; but in general they are much lower. They are not properly flocks, but annual stocks, bought in lean and fold fat; the profit from 10s. to 15s. a head.

In their tillage, they reckon four or five horses necessary to 100 acres arable; and some will keep six. They never use more than two in a plough in their strongest work, and generally do about an acre a day. *Suffolk* ploughmen are more valued than the *Essex* ones. They stir about four inches deep. The hiring price of ploughing 5s. an acre. The annual expence of a horse, including his decline in value, they calculate at 15*l*. They use both foot and wheel ploughs, but prefer the latter. They break their stubbles usually before *Christmas*.

In stocking farms, they reckon better than 2000*l*. necessary for a farm of 300 acres;

acres; 100 meadow, and 200 arable; which sum they divide as follows.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	-	-	240	0	0
Tythe, 3 <i>s.</i> 6 <i>d.</i> in £.	-	-	42	0	0
Rates, 2 <i>s.</i> 6 <i>d.</i>	-	-	30	0	0
12 horses, at 20 <i>l.</i>	-	-	240	0	0
Harnesfs,	-	-	18	0	0
One broad-wheel waggon,			70	0	0
Three narrow ditto,	-	-	70	0	0
Six carts,	-	-	72	0	0
Six ploughs,	-	-	12	0	0
Three pr. harrows,	-	-	6	0	0
Three rollers,	-	-	5	0	0
Sundry implements,	-	-	30	0	0
Furniture, including dairy,			150	0	0
Seed for 50 acres					
wheat,	35	0	0		
50 Barley,	30	0	0		
50 Clover,	12	10	0		
50 Turnips,	2	10	0		
				80	0 0
10 Cows,	-	-	70	0	0
Swine,	-	-	15	0	0
150 Sheep,	-	-	120	0	0
Carry over,			1270	0	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	1270	0	0
30 oxen for after-grafs and turnips, at 10 <i>l.</i> -	300	0	0
Four fervants and eight labour- ers, at 20 <i>l.</i> on an average,	240	0	0
Two boys, at 10 <i>l.</i> -	20	0	0
Two maids, at 12 <i>l.</i> -	24	0	0
House-keeping a year for the farmer and family, (exclu- sive of fervants) and pocket- expences, &c. -	100	0	0
Feeding 12 horses a winter,	50	0	0
Ditto cows, &c. -	20	0	0
A year's wear and tear, -	50	0	0
Cash in hand for incidental expences, - -	100	0	0
	2174	0	0

And they calculate the annual expences and produce of such a farm in the following manner.

<i>Expences.</i>			
Rent,	-	-	240 0 0
Tythe,	-	-	42 0 0
Rates,	-	-	30 0 0
Carry over,			312 0 0

		<i>l.</i>	<i>s.</i>	<i>d.</i>
	Brought over,	312	0	0
Labour,	-	284	0	0
Seed,	-	80	0	0
Wear and tear,	-	50	0	0
150 Sheep,	-	120	0	0
30 Oxen,	-	300	0	0
		1146	0	0

Produce.

50 acres wheat, $2\frac{1}{2}$ qrs. <i>per</i>				
acre, 125 qrs. at 45 <i>s.</i>	281	5	0	
50 acres barley and oats,				
$4\frac{1}{2}$ qrs. <i>per</i> acre, 225 qrs.				
Deduct for horses, 68				
Remains of barl. 157 at 24 <i>s.</i>	188	8	0	
10 cows,	60	0	0	
Swine,	30	0	0	
150 sheep,	200	0	0	
30 oxen,	500	0	0	
170 load of hay to spare, at 40 <i>s.</i>	340	0	0	
Total produce,	1599	13	0	
Total expence,	1146	0	0	
Clear profit,	453	13	0	

Those farmers who do not make this
profit, are such as either hired too much
land

land for their money, or that run their land by taking too many crops of white corn in a course. It should also be observed, that if the meadows were not common field after mowing, 170 loads of hay should on no account be allowed to be sold, according to the principles of good husbandry; but on the contrary, a proportion of the land applied to summer fattening oxen, and the rest of the hay used for winter-feeding them; which would be far more advantageous to the farm in raising manure; but as the meadows must be mown, the arable farmer can use no more hay at home than sufficient for consuming by such cattle as his turnips will enable him to keep.

In this farm, the 50 acres clover are supposed to be fed through the year, supporting the 10 cows, 12 horses, and 150 sheep: the 100 acres of meadow to yield 250 loads of hay, of which the cows may take

take	-	-	10 loads,
The sheep,	-	-	10
The horses,	-	-	30
The oxen,	-	-	30
			—
			80

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Total,	-	-	250
Deduct	-	-	80
Remains to sell,	-	-	170

Land in this neighbourhood sells at thirty to thirty-two years purchase. Tythe in general compounded at 3 s. 3 d. 3 s. 6 d. &c. in the pound ; but some parishes are gathered. Poor rates, 2 s. to 3 s. 6 d. The employment of the poor women and children, spinning wool. All drink tea, and most of them twice a day.

All farmers have leases ; nine, fourteen, or twenty-one years.

LABOUR.

In winter, 1 s. 2 d.

In hay-time, 1 s. 4 d.

In harvest, 1 s. 8 d.

Reaping wheat, 5 s. to 7 s.

Mowing barley, &c. 1 s. 6 d.

—— Hay, — 1 s. 4 d. to 2 s.

Hoeing turnips, first, 5 s.

Second, 3 s.

Leans, first, 6 s.

Second, 3 s.

D d

Ditching,

Ditching, 6 *d.* to 1 *s.* 6 *d.*

Water-furrowing, 10 *d.* a score.

Filling cart, 2 *d.* 2½ *d.* 3 *d.*—30 bushels.

Threshing wheat, 1 *s.* to 1 *s.* 6 *d.* a sack.

Barley, 7 *d.*

Oats, 6 *d.*

Pease, 6 *d.*

Beans, 6 *d.* 7 *d.*

Making faggots, 2 *s.* per hundred.

Amount of year's earnings about 22 *l.*

Head man's wages, 10 *l.*

Next ditto, 7 *l.*

Lad's ditto, 3 *l.*

Dairy maid, 3 *l.* 10 *s.* to 4 *l.*

Other maids, 2 *l.* 10 *s.* to 3 *l.*

Women a day, in harvest, 8 *d.*

———— In hay, 6 *d.*

———— In winter, 5 *d.*

IMPLEMENTS.

A waggon, 25 *l.*

A cart, 12 *l.*

A plough, 1 *l.* 15 *s.* to 2 *l.*

A pr. harrows, 1 *l.* 10 *s.* 1 *l.* 15 *s.* 2 *l.*

A barley roller, 1 *l.* 10 *s.* to 2 *l.*

A scythe, 4 *s.*

A spade, 4 *s.*

Laying a share, 1 *s.* 4 *d.*

Laying

Laying a coulter, 6 *d.* 8 *d.*

Shoeing, 1 *s.* 4 *d.* 1 *s.* 6 *d.*

PROVISIONS.

Bread, - - 1½ *d.* per *lb.*

Cheese, - - 2½ *d.* to 3 *d.*

Butter, - - 9 *d.*

Beef, - - 3½ *d.* to 4 *d.*

Mutton, - - 4 *d.*

Veal, - - 3½ *d.* to 4 *d.*

Pork, - - 4 *d.*

Bacon, - 8 *d.*

Milk, - - ½ *d.* a pint.

Potatoes, - 4 *d.* a peck.

Candles, - 7 *d.* per *lb.*

Soap, - - 7 *d.*

Labourer's house-rent, 30 *s.* to 40 *s.*

Firing, 20 *s.* to 30 *s.*

Tools, 7 *s.* 6 *d.* to 10 *s.* 6 *d.*

The following are the particulars of some farms here.

300 acres in all,	50 barley,
200 arable,	50 clover,
100 grafs,	50 turnips,
240 <i>l.</i> rent,	12 horses,
50 wheat,	10 cows,
	30 fat-

D d 2

30 fatting oxen,	8 labourers,
150 sheep,	2 boys,
4 men,	2 maids.

Another.

170 acres in all,	20 clover,
100 arable,	2 men,
70 grafs,	1 maid,
130 <i>l.</i> rent,	1 boy,
20 wheat,	5 labourers,
20 barley,	10 cows,
10 oats,	80 sheep,
10 peafe,	20 oxen,
20 turnips,	6 horfes.

Another.

140 acres in all,	10 oats,
100 arable,	5 cows,
40 grafs,	15 oxen,
110 <i>l.</i> rent,	60 sheep,
20 turnips,	6 horfes,
20 barley,	1 man,
20 clover,	1 maid,
20 wheat,	2 boys,
10 peafe,	5 labourers.

Another.

60 acres in all,	20 grafs,
40 arable,	60 <i>l.</i> rent,
	10 wheat,

10 wheat,	8 young cattle,
10 barley,	20 sheep,
10 oats,	4 horses,
10 fallow,	1 man,
6 cows,	1 labourer.

Another.

50 acres in all,	3 turnips,
10 grafs,	4 clover,
40 arable,	8 cows,
52 <i>l.</i> rent,	6 young cattle,
15 wheat,	4 horses,
10 barley,	1 man,
8 fallow,	1 boy.

The husbandry of this tract of country is, upon the whole, very good; but it must at the same time be acknowledged, that the farmers possess advantages of which they do not make a full use. Their turnip lands are an excellent soil, which would yield any crop; but in particular, they are thoroughly adapted to producing carrots; a root which would yield them a profit far superior to what they reap from turnips; none however are cultivated. Some farms have such large tracts of the rich meadow land, that the turnips, even when

sown in proper quantities, are not sufficient for the consumption of all the hay; in such a case, if carrots were introduced, the necessity of selling hay would at once disappear; for the same quantity of land sown with carrots, would fatten a vastly greater number of beasts, and the consumption of hay consequently be increased in proportion; an acre would feed four beasts of 100 stone, or five of 60 or 80; whereas an acre of turnips will hardly fatten one such beast, and not one if it is not a very good acre. This change in their crops would occasion a profit over the whole farm infinitely superior to what is experienced at present; this will appear very clearly by calculating both. Suppose the farm to contain 200 acres arable, like the above calculated one; of stock, 30 oxen are there supposed, with 150 sheep, to eat 50 acres of turnips; we may suppose 40 acres allotted for the oxen, they also eat 30 loads of hay. For want of more turnips, 170 loads of hay are sold from off the farm.

Expences of 40 acres of turnips.

		<i>l.</i>	<i>s.</i>	<i>d.</i>
Five ploughings, at 5 <i>s.</i>	-	50	0	0
Harrowing, at 2 <i>s.</i> 6 <i>d.</i>	-	5	0	0
Manuring, 10 load an acre, at 2 <i>s.</i> 6 <i>d.</i>	- -	50	0	0
Seed, at 1 <i>s.</i>	- -	2	0	0
Sowing, 3 <i>d.</i>	- -	0	10	0
Hoeing, 8 <i>s.</i>	- -	16	0	0
As they are commonly fed in the field, there is only the expence of herdling, sup- pose 2 <i>s.</i> an acre,	-	4	0	0
Rent, at 16 <i>s.</i>	- -	32	0	0
Tythe and rates, 6 <i>s.</i> in £.		9	12	0
		169	2	0
30 loads of hay,	-	45	0	0
		214	2	0
Improvement of the oxen, 6 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i> each,	-	200	0	0
Loss,	- -	14	2	0

Such an account as this, any farmer would think himself not badly off to realize by turnips; for if he pays the expences of

D d 4

that

that crop, and has the advantage of consuming them at home, and at the same time save the felling a load of hay for each beast from the farm, he certainly does well; I believe they very seldom do more, but generally come short of it in this account, and yet no charge is made for the after-grass the beasts eat. It is no wonder, for these turnips cost near 3 *l.* 12 *s.* an acre; whereas the common price of the country is but 2 *l.* 2 *s.* which shews them to be a crop that very rarely answers,

Now let us turn to carrots.

Expences of 40 acres.

		<i>l.</i>	<i>s.</i>	<i>d.</i>
Two ploughings, at 5 <i>s.</i>	-	20	0	0
Harrowing, 1 <i>s.</i>	-	2	0	0
Seed, 3 <i>lb.</i> at 1 <i>s.</i> 6 <i>d.</i>	-	9	0	0
Sowing,	-	2	0	0
Manuring as for turnips,	-	50	0	0
Hoeing, at 3 <i>l.</i>	-	120	0	0
Taking up, at 10 <i>s.</i>	-	20	0	0
Carting home, 10 <i>s.</i>	-	20	0	0
Topping and laying up, 10 <i>s.</i>	-	20	0	0
Rent, &c.	-	41	12	0
		304	12	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	304	12	0
Five beasts <i>per</i> acre, 200 in all, each 1 load hay, at 30 <i>s.</i>	300	0	0
	604	12	0
Improvement in 200 oxen, suppose only 5 <i>l.</i> each,	1000	0	0
Expences, - -	604	12	0
Clear profit, - -	395	8	0

I have supposed the product of the carrots by fattening the oxen, to be less than has been actually experienced by several men who have accurately tried it. The difference between gaining near 400 *l.* a year, the dung of 200 fat oxen, and the advantage of consuming all the hay of the farm at home, in one case, and losing 14 *l.* in the other, is so immense, that it needs very little comment.

I think this calculation shews how much it behooves these farmers to adopt the culture of carrots, instead of that of turnips, upon their dry gravelly loams; nothing can be clearer than the very great gain they would thereby ensure; even to the amount
of

of much more clear profit from their carrot fallow, than they at present make of their whole farms. What an astonishing difference also between the dung of 30 oxen and that of 200, relative to the profits of all the rest of the farm.

Another point of management I shall mention, is the article of chopping and gathering their stubbles; they do this in part; that is, enough to litter their yards once at the beginning of the season, but they seldom do it over all their wheat crop, neglecting much. This is a very bad conduct, and destructive of much of their profit; the crops of a farm depend entirely on the quantity of manure raised; the whole attention of a husbandman all winter long should be exerted to render the compost dunghill as large as possible, which can never be effected without making the most of all the stubble of a farm. It is an amazing quantity of litter cattle will convert to rich manure, if they are properly supplied with it. I have very rarely seen them littered with a view to raising as much dung as possible; and yet no object
about

about a farm deserves greater attention. If these farmers entered into the culture of carrots for stall-feeding oxen, as I have proposed, they would find themselves necessitated to gain as large a quantity of litter as possible.

Another circumstance which it is necessary to speak to is the culture of the meadows on the river *Stour*; I before remarked, that most of them are common after the hay-crop; but there are some tracts which are absolute property; these I should propose to convert to water meadows, by which means they might be mown twice or thrice every year, like those in *Berkshire* and *Wiltshire*, where this husbandry is so well understood; the improvement would much more than pay the expences of dams, drains, sluices, &c.

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Husbandry at *Lanvachers*.

It is melancholy to travel through such considerable tracts of country blessed with a fine and fertile soil, but cultivated in so imperfect a manner. It is amazing how the farmers can pay any rent for land thus

thus managed; I apprehend it is the grafs part of their farms that supports them, and enables them to support the losſ which I ſhould conceive muſt attend the arable. Their keeping 12 oxen and 4 or 5 horſes to 100 acres of arable land, is ſuch a ſyſtem as would amaze an Eaſt-country farmer: ſuppoſe 1 horſe is reckoned for 2 oxen, this is above 10 horſes for that quantity of land; which, moderately ſpeaking, is *doubling* the expence of tillage, beſides the extra's of drivers for the ploughs. Ploughing an acre of land in ſuch a ſyſtem cannot coſt leſs than 10s. an acre.

Having 8 or 9 men alſo for ſuch a portion of land, and at the ſame time not hoeing any crops or practiſing a good huſbandry, ſhews another profuſion which muſt be attended with a correſponding loſs, by raiſing the farmer's expences enormously, without bringing him any proportioned return.

Their courſe of crops of

- | | |
|------------|-----------------------|
| 1. Fallow, | 5. Ray-graſs and |
| 2. Wheat, | clover 5 years, pared |
| 3. Barley, | and burnt, |
| 4. Oats, | |

And also,

- | | |
|------------|--------------------|
| 1. Fallow, | 4. Clover 2 years, |
| 2. Wheat, | 5. Wheat. |
| 3. Barley, | |

are so very bad, as to be under such circumstances incompatible with profit. Of which can there be stronger proofs than their crops on good lands:

Wheat, 17 bushels.	Beans, 15
Barley, 18	Pease, 15
Oats, 15	

And that the benefit of such a culture, if any thing, is extremely trifling, will appear from the following calculation; the circumstances taken from the account of their management.

1. FALLOW and WHEAT.

Three ploughings, at 10 s.	1	10	0
Seed, 2 bushels, suppose at 6 s.	0	12	0
Sowing, - - -	0	0	6
Reaping, - - -	0	5	0
Harvesting, - - -	0	2	0
Threshing 17 bushels, at 3 d.	0	4	3
Carry over,	2	13	9

thus managed; I apprehend it is the grafs part of their farms that fupports them, and enables them to fupport the lofs which I fhould conceive muft attend the arable. Their keeping 12 oxen and 4 or 5 horfes to 100 acres of arable land, is fuch a fyftem as would amaze an Eaft-country farmer: fuppoſe 1 horſe is reckoned for 2 oxen, this is above 10 horſes for that quantity of land; which, moderately ſpeaking, is *doubling* the expence of tillage, beſides the extra's of drivers for the ploughs. Ploughing an acre of land in ſuch a ſyſtem cannot coſt leſs than 10s. an acre.

Having 8 or 9 men alſo for ſuch a portion of land, and at the ſame time not hoeing any crops or practiſing a good huſbandry, ſhews another profuſion which muſt be attended with a correſponding loſs, by raiſing the farmer's expences enormously, without bringing him any proportioned return.

Their courſe of crops of

- | | |
|------------|-----------------------|
| 1. Fallow, | 5. Ray-graſs and |
| 2. Wheat, | clover 5 years, pared |
| 3. Barley, | and burnt, |
| 4. Oats, | |

And also,

- | | |
|------------|--------------------|
| 1. Fallow, | 4. Clover 2 years, |
| 2. Wheat, | 5. Wheat. |
| 3. Barley, | |

are so very bad, as to be under such circumstances incompatible with profit. Of which can there be stronger proofs than their crops on good lands:

Wheat, 17 bushels.	Beans, 15
Barley, 18	Pease, 15
Oats, 15	

And that the benefit of such a culture, if any thing, is extremely trifling, will appear from the following calculation; the circumstances taken from the account of their management.

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Sowing, - - -	0	0	6
Reaping, - - -	0	5	0
Harvesting, - - -	0	2	0
Threshing 17 bushels, at 3 d.	0	4	3
Carry over,	2	13	9

		<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,		2	13	9
Carrying out, $1\frac{1}{2}d.$	-	0	2	$1\frac{1}{2}$
Rent,	-	0	9	0
Tythe and rates,	-	0	2	6
Ditto fallow year,	-	0	11	6
Manuring, suppose	-	1	10	0

5 8 $10\frac{1}{2}$

Produce.

17 bushels, at 6s.	-	5	2	0
Straw,	-	0	10	0
		5	12	0
		5	8	$10\frac{1}{2}$
Profit,	-	0	3	$1\frac{1}{2}$

2. BARLEY.

Two ploughings,	-	1	0	0
Harrowings,	-	0	5	0
Seed, 3 bushels, at 3s.	-	0	9	0
Sowing,	-	0	0	3
Mowing,	-	0	1	6
Harvesting,	-	0	3	0
Threshing 18 bushels, $1\frac{1}{2}d.$	-	0	2	3
Carrying out, 1d.	-	0	1	6
Rent, &c.	-	0	11	6
		2	14	0

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Produce.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
18 bushels, at 3 s. -	2	14	0
Straw, - -	0	10	0
	3	4	0
Expences, - - -	2	14	0
Profit, - - -	0	10	0

3. O A T S.

One ploughing, -	0	10	0
Harrowing, - -	0	3	6
Seed, 3½ bushels, at 2 s. 3 d.	0	7	10
Sowing, - -	0	0	3
Mowing, - -	0	1	6
Harvesting, - -	0	3	0
Threshing, 15 at 1½ d. -	0	1	10½
Carrying out, 1 d. -	0	1	3
Rent, &c. - -	0	11	6
	2	0	8½

Produce.

15 bushels, at 2 s. 3 d.	1	13	9
Straw, - -	0	7	6
	2	1	3
Expences, - - -	2	0	8½
Profit, - - -	0	0	6½

Then follows the ray-grass and clover for five years ; and as they are sown with the third crop of corn, it is easy to imagine what a miserable pasture it must be : to suppose it pays rent and expences, is as much as can well be allowed, as the expence of paring and burning comes in, which may be about 20*s.* an acre ; the preceding crops may therefore be called the course.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
Wheat, profit,	-	-	0	3	1½
Barley ditto,	-		0	10	0
Oats ditto,	-	-	0	0	6½
			0	13	8
Average of the 4 years,	-		0	3	5

If it be considered that something is reckoned for straw, which though profitable to the farmer for his cattle, brings in no money, this profit is but another word for a considerable loss. Some expences are not reckoned here, such as fences, &c. others are very low, particularly the manuring ; for at the rate all their work is performed by draught cattle, the very carriage of the dung must amount almost

almost to 30*s.* Upon the whole, there needs not more arguments or proofs to shew that this system is most unprofitable trifling.

Now suppose it changed to,

- | | |
|-------------|------------|
| 1. Turnips, | 3. Clover, |
| 2. Barley, | 4. Wheat, |

the tillage performed with a pair of horses or oxen, and the landlord paid 15*s.* an acre (which the land is worth, instead of 9*s.*) we shall find the account wonderfully different, allowing no more than is experienced in so many parts of the kingdom where the soil is no better.

I. TURNIPS.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Four ploughings, at 5 <i>s.</i>	1	0	0
Harrowings, -	0	2	6
Seed and sowing, -	0	1	3
Hoeing, - - -	0	10	0
Herdling, - - -	0	2	0
Manuring, - - -	1	10	0
Rent, - - -	0	15	0
Tythe, &c. - - -	0	2	6
	4	3	3

E e

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	4	3	3

Produce.

Value of the crop : at present it
would be worth twice as much,
but I suppose the whole coun-
try improved, . - -

	2	0	0
Loss,	2	3	3

II. BARLEY.

Three ploughings, -	0	15	0
Harrowing, - -	0	2	0
Seed and sowing, -	0	12	3
Mowing and harvesting,	0	4	6
Threshing, 4 qrs. at 1 <i>s.</i>	0	4	0
Carrying out, at 8 <i>d.</i> -	0	2	8
Rent, &c. - -	0	17	6
	2	17	11

Produce.

4 quarters, at 24 <i>s.</i> -	4	16	0
Straw, - -	0	15	0
	5	11	0
Expences, - -	2	17	11
Profit, - -	2	13	1

III. CLOVER.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Seed and fowing, -	0	5	3
Mowing, making, carting, and stacking twice, at 7 s..	0	15	0
Rent, &c. -	0	17	6
	1	17	9

Produce.

3 loads of hay, at 30 s.	4	10	0
Expences, -	1	17	9
Profit, -	2	12	3

IV. WHEAT.

One ploughing, -	0	5	0
Harrowing, -	0	1	0
Seed, -	0	12	0
Sowing, -	0	0	6
Reaping, -	0	5	0
Harvesting, -	0	2	0
Threshing, 3 qrs. at 2 s.	0	6	0
Carrying out, at 1 s. -	0	3	0
Rent, &c. -	0	17	6
	2	12	0

Produce.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
3 quarters, at 48 s.	-		7	4	0
Straw,	-	-	0	10	0
Expences,	-	-	7	14	0
			2	12	0
Profit,	-	-	5	2	0
II. Profit by Barley,	-		2	13	1
III. ———— Clover,	-		2	12	3
IV. ———— Wheat,	-		5	2	0
			10	7	4
I. Loss by turnips,	-		2	3	3
Profit in 4 years,	-		8	4	1
Which is <i>per ann.</i>	-		2	1	0
By their present husbandry,			0	3	5
Superiority,	-	-	1	17	7

Nothing here is exaggerated at all, and yet the farmer's profit is increased to twelve times a greater, while the landlord gets 15 s. instead of nine: if this does not shew the importance of changing their methods I know nothing that can.

In a square of 22 miles every way, are 484 square miles; and each being 640 acres, 309,760 in the whole. Suppose the whole cut into farms, each of a square mile, or 640 acres. And let us allot 14 square miles for roads; there then remains 470 for improvement. I shall calculate one farm.

Buildings, <i>viz.</i> a house, barn,			
stable, cow-house, hogsties,	<i>l.</i>	<i>s.</i>	<i>d.</i>
and walling, -	500	0	0
Fencing into fields of 40 acres			
each by ditches, the banks			
planted with white thorns,			
and secured by dead hedges;			
gates, palings at the ends,			
arches, &c. all in the per-			
fect manner laid down in			
my <i>Course of Experimental</i>			
<i>Agriculture</i> , Vol. II. p. 427,			
including one reparation,	899	4	6
Planting 140 acres; raising			
and setting, 40 s. an acre,	280	0	0
Paring and burning 500 acres,			
at 25 s. The price of the			
country is 15 s. -	625	0	0
Total, -	2304	4	6
E e 3			

Farming stock.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
24 horses, at 20 <i>l.</i>	-		480	0	0
1 broad-wheeled waggon,			70	0	0
5 narrow ditto, at 25 <i>l.</i>	-		125	0	0
5 carts, at 12 <i>l.</i>	-		60	0	0
12 ploughs,	-	-	50	0	0
12 harrows,	-	-	30	0	0
5 rollers,	-	-	15	0	0
Harnes, -	-	-	50	0	0
Sundry implements,	-	-	40	0	0
Furniture,	-	-	100	0	0
Total,	-	-	1020	0	0
First improvement,	-		2304	4	6
Total,	-	-	3324	4	6
Interest of that sum at 4 <i>per cent.</i>			133	0	0
A bailiff,	-	-	67	0	0
Standing expences,	-		200	0	0

First year, Turnips.

One ploughing, at 5 <i>s.</i>			125	0	0
Harrowing, 2 <i>s.</i> 6 <i>d.</i>	-		62	10	0
Seed, 1 <i>s.</i>	-	-	25	0	0
Carry over,			212	10	0

		<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,		212	10	0
Sowing, 3 <i>d.</i>	- -	6	5	0
Hoeing, 10 <i>s.</i>	- -	250	0	0
Herdling for sheep, 2 <i>s.</i>	-	50	0	0
Rent, &c. 2 <i>s.</i> 6 <i>d.</i>	62 10 0			
Do. planta. 140 acr.	17 10 0			
		80	0	0
Standing expences,	-	200	0	0
Total expence of turnip crop,		798	15	0

Second year, Turnips and Barley.

100 acres turnips, 3 plough-				
ings, at 5 <i>s.</i>	-	75	0	0
Harrowing, at 2 <i>s.</i> 6 <i>d.</i>		12	10	0
Seed and fowing, 1 <i>s.</i> 3 <i>d.</i>		6	5	0
Hoeing, 10 <i>s.</i>	-	50	0	0
Herdling, 2 <i>s.</i>	-	10	0	0
400 acres of barley and oats,				
3 ploughings, at 5 <i>s.</i>		300	0	0
Harrowing, 2 <i>s.</i> 6 <i>d.</i>	-	50	0	0
Seed, 12 <i>s.</i>	- -	240	0	0
Sowing, 3 <i>d.</i>	- -	5	0	0
Sainfoine seed for 200 acres,				
at 15 <i>s.</i>	- - -	150	0	0
Sowing, 3 <i>d.</i>	- -	2	10	0
Carry over,		901	5	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	901	5	0
Mowing, harvesting, and cart- ing, 5 <i>s.</i>	100	0	0
Threshing, 4 qrs. an acre, 1600 qrs. at 1 <i>s.</i> 4 <i>d.</i>	106	13	0
Carrying out, at 6 <i>d.</i> -	40	0	0
Rent, &c. as before, 80	0	0	0
Standing expences, 200	0	0	0
		280	0 0
Clover seed and sowing for 100 acres, at 5 <i>s.</i> 3 <i>d.</i> -	26	5	0
100 head of young cattle, to eat the straw and make dung, 300	0	0	0
Total, - -		1754	3 0

*Third year, Turnips, Barley, Clover, and
Sainfoine.*

Expences on 100 acres of tur- nips as last year, 30 <i>s.</i> 9 <i>d.</i> <i>per acre</i> , - - -	153	15	0
Manuring from farm-yard as far as it goes, supposing 1000 loads, at 6 <i>d.</i> labour,	25	0	0
Carry over,	178	15	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Brought over,	178	15	0
Mowing, making, carting, and stacking 100 acres of clover twice, 12 <i>s.</i> - -	60	0	0
Ditto 200 acres of sainfoine once, at 6 <i>s.</i> -	60	0	0
Three ploughings 100 acres of barley, at 5 <i>s.</i> -	75	0	0
Harrowing, 2 <i>s.</i> 6 <i>d.</i> -	12	10	0
Seed, 12 <i>s.</i> - -	60	0	0
Sowing, 3 <i>d.</i> - -	1	5	0
Mowing, &c. 5 <i>s.</i> -	25	0	0
Threshing, 4 qrs. <i>per</i> acre, 400 qrs. at 1 <i>s.</i> 4 <i>d.</i> -	26	13	0
Carrying out, 6 <i>d.</i> -	10	0	0
Rent and standing charges,	280	0	0
Total, - -	789	3	0

No cattle bought for straw or hay, as the farm is now in perfect order to let.

EXPENCES.

First year, - -	798	15	0
Second, - -	1754	3	0
Third, - -	789	3	0
	3342	1	0

PRODUCE.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
First year, turnips, fold to be fed off with sheep, at 30 s.*	750	0	0
Second year, 100 acres turnips, at 30 s. - -	150	0	0
Barley, 1600 qrs. at 22 s.	1760	0	0
100 head of young cattle cost 300 l. improved by 400 acres, at 5 s. an acre, to 400 l.	400	0	0
Third year, 100 acres turnips, at 30 s. - -	150	0	0
100 acres of clover hay, 2 loads; 200 loads, at 30 s. -	300	0	0
200 acres sainfoine hay, 100 loads, at 30 s. -	150	0	0
400 qrs. of barley, at 22 s. -	440	0	0
Total produce, - -	4100	0	0
Expence, - -	3342	1	0
Profit, - -	757	19	0

* Note, this plain is in the midst of the greatest sheep country in *England*, where there would be no difficulty of selling five times as many turnips as here supposed.

		<i>l.</i>	<i>s.</i>	<i>d.</i>
First improvement,	-	2304	4	6
The above profit,	-	757	19	0

Total expence of the improve- ment, with 1000 <i>l.</i> farming stock to go on with,		1646	5	6

The farm would then let for
at least 12*s.* an acre, upon
the most moderate calcula-
tion; this is *per ann.* for 500, 300 0 0

Deduct old rent at 1*s.* 6*d.*
for 640, - - 48 0 0

Remains improvement,		252	0	0

Which at 30 years purchase is,		7560	0	0
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Deduct the expence,	-	1646	5	6

Remains net profit,	-	5913	14	6

Besides the 140 acres of plantation, which
will be found the most important part of
the whole.

The average product *per* acre of three
plantations of Mr. *Mitford's*, (See *Farmer's*
Tour,

Tour, vol. III. p. 211, 212, 221.) of 48, 45, and 40 years growth, is 762 *l.* this growth gives an annual cutting of 3 acres in a plantation of 140 acres, that is of 2286 *l.* The firs, firs and pinasters. For the first five years, the plantation yields only faggot wood; for the next five, some that is saleable: from ten to twenty years, the thinnings may be reckoned at 20 *s.* *per* acre: from twenty to thirty years, at 30 *s.* from thirty to forty-four, at 40 *s.* and then the annual cutting of three acres comes; after which, I shall suppose the thinnings only to pay expences of new planting the land, &c. The account will be therefore as follows *per annum*,

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Improved rent profit, -	252	0	0
Deduct interest of 1646 <i>l.</i>	66	0	0
Profit <i>per ann.</i> for 10 years,	186	0	0
Thinnings of 140 acres planted,	140	0	0
Profit <i>per ann.</i> the next 10 years,	326	0	0
	186	0	0
Thinnings of 140 acres,	210	0	0
Profit <i>per ann.</i> the next 10 years,	396	0	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	186	0	0
Thinnings, - -	280	0	0
Profit <i>per ann.</i> the next 14 years,	466	0	0
	186	0	0
Three acres, at 762 <i>l.</i> -	2286	0	0
Profit <i>per ann.</i> ever after,	2472	0	0

This is the account of one square mile, being 640 acres, and forming one farm; the account of the 470 will be as follows.

	<i>l.</i>
Improved rental, at 12 <i>s.</i> an acre,	144,000
Deduct old rental, at 1 <i>s.</i> 6 <i>d.</i>	22,560
Net improvement, -	121,440
Which at 30 years purchase is worth - - -	3,643,200
Deduct the expence of 1646 <i>l.</i>	
<i>per square mile,</i> - -	773,620
Remains net profit, - -	2,869,580

l.

Exclusive of 65,800 acres planted.

Improved rent profit, - -	121,440
Deduct interest of 773,620 l.	30,944

Profit <i>per ann.</i> for 10 years,	90,496
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90,496

Thinnings of 65,800 acres planted, at 20s. - -	65,800
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Profit <i>per ann.</i> the next 10 years,	156,296
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90,496

Thinnings, at 30s. - -	98,700
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Profit <i>per ann.</i> the next ten years,	189,196
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90,496

Thinnings, at 40s. - -	131,600
------------------------	---------

Profit <i>per ann.</i> the next 14 years,	222,096
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90,496

Cutting 1410 acres, at 762 l.	1,074,420
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Profit <i>per ann.</i> ever after, -	1,164,916
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And to shew how important an expenditure this profit is gained by, and of course population, &c. so greatly encouraged, let us multiply some other circumstances of the first mentioned farm by 470, the total number.

Fencing, building, paring, burn-	l.
ing and planting, -	1,082,880
Farming stock, - -	479,400
First year's expence of turnips,	375,607
Second year, - - -	824,380
Third year, - - -	370,830
Total, - - - -	1,570,817
Improvement, - -	1,082,880
Stock, - - -	479,400
Three years, - - -	1,570,817
Total, - - -	3,133,097
Three years produce, -	1,927,000

Suppose each farm to have a				
farmer, his wife, and 3 chil-				<i>Souls.</i>
dren, in all,	-	-	-	5
Men servants,	-	-	-	4

	<i>Souls.</i>
Brought over,	9
Maids, - - -	2
Boys, - - -	2
Labourers, - - -	15
Each labourer a wife and 3 chil-	
dren, - - -	60
	88
And to the 470 farms, -	41,360

Here we find that such an improvement as this creates a clear income to the landlords of more than eleven hundred thousand pounds a year; forms a new rental of more than ninety thousand a year, and of course such an income to the tenants, who in return support many other classes; and, in the whole, gives birth to a new population of more than forty thousand souls immediately dependant on the improvement; besides the great number of people supported by these new landlords, farmers, labourers, &c. All this forms a system of national improvement of infinite consequence; of a magnitude which those who transiently ride over this dreary waste cannot immediately conceive. The three
first

first years produce, before the lands are got in that order they would be in afterwards, amounts to very near seven hundred thousand pounds a year : it is a very moderate computation to calculate them at a million sterling, exclusive of the noble plantations which would yield such a great profit. Such an undertaking as this wants nothing but resolution to overcome all difficulties that would arise in it. It might be executed either as a national work, or by the subscription of a company; by hiring the plain of its possessors for 99 years, at a rent something better than the present; which would be a great advantage to their estates, as at the expiration of the leases, they would come into valuable and well cultivated lands, instead of the former wastes : this I mention, upon the supposition that they would not attempt the execution of any such plan themselves.

Suppose the farmers (as they probably would) found it advantageous to have 200 acres out of the 500 always under fain-

F f

foine;

foine; 300 would remain, these they ought to throw into the course of,

- | | |
|-------------|------------|
| 1. Turnips, | 3. Clover, |
| 2. Barley, | 4. Wheat. |

Of each 75 acres: the wheat at $2\frac{1}{2}$ quarters *per* acre would yield 187 quarters, and the barley at 4 quarters *per* acre, 300 quarters. Upon the whole 470 farms, it would be,

Wheat, quarters,	-	-	87,890
Barley, ditto,	-	-	141,000

The 75 acres of clover, and 25 of the sainfoine, should be fed with cows, and would maintain 50 through the summer; these would require near 50 loads or 25 acres of sainfoine hay. The 75 acres of turnips would stall-feed 150 oxen, who would each eat a load of sainfoine hay; about enough would be to spare for the team. Thus each crop on the farm would be just proportioned to the other.

The product of the cows in butter, cheese, and veal, at only 5*l.* a head, would be
250*l.*

250 <i>l.</i> <i>per</i> farm,	and over the	<i>l.</i>
whole,	-	117,500
The oxen at 12 <i>l.</i> would be 1800 <i>l.</i>		
<i>per</i> farm,	and in the whole,	846,000

And this besides the various other articles of produce.

While a kingdom possesses such resources of plenty in her soil, is it not a strange absurdity for her subjects to be clamorous for fear of famine? Writers who do not sufficiently reflect on the quantity of food for man which a given breadth of country will produce, are violent in their declamations against exporting corn, and against the inclosing of commons; as if the height of the prices felt by the *English* could be owing to either of those causes. It is evident, that the way to have plenty of provisions is to cultivate every part of our soil that will admit of it: and at the same time that the breaking up such wastes causes a plenty of provisions, it increases the valuable part of our population. In a word, it has every good effect that can ever be looked for from national works.

Many persons are apt to consider calculations of this sort as visionary ; they think *that a traveller may much easier cry out, What pity this plain is not cultivated ! and a writer in his closet expatiate on it with his pen, than any one can carry their schemes into execution. If such great profit attends the culture of these wastes, why did not our fathers and grand-fathers attempt it ? It is easy to talk of having wheat and barley and fat oxen, where we now only find sheep-feed, but not so easy to produce them.*

But the prudence and moderation of such sentiments are more apparent than real ; and entirely overlook several circumstances of decisive importance.

What originally occasioned the bounds of waste lands ? Why do we see them of such irregular shapes ? Does the cultivated land jet into the commons just where the soil is best, and is it only bad land that is left open ? Nothing farther from the fact. One can attribute the variations to chance alone. You see in the arable fields adjoining the plain, better crops of corn than

I have

I have supposed; you find the soil is the same: you can, upon the minutest examination, see no reason for one tract being inferior to the other, if under equal management. But the conduct supposed in the preceding calculation, would give the advantage very much to the new inclosures, and that to a much greater amount than the present sheep-folds.

But if the truth in these cases was fairly spoken, landlords would reply (instead of denying the propriety and profit of such works) *I have not the money. What you propose may be, as I believe it is, very true; but I spend my income, and was it larger, should know what to do with it, without busying myself in ploughing and carting.* This is the reason we see so few great improvements carried on. Let not any one therefore condemn the proposal as impracticable, because it is not in practice. But this should convince the patriotic minds, who wish to see such works undertaken in an effectual manner, that the way to bring them into execution, is to take them into their own hands. A society of

men, each subscribing a certain sum of money for the purchase, or rental on long leases, of such large waste tracts, and for the improvement of them by converting them as soon as possible into farms, would be able, without any great difficulty or hazard, to effect most noble works of this sort.

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